Capitalist Combination in the Coal Industry

D. J. Williams

This Book must be returned to the Library on, or before, the last date shown below

Capitalist Combination in the Coal Industry

Capitalist Combination in the Coal Industry

By D. J. Williams

With an Introduction by the Rt. Hon. Thomas Richards, Vice-President of the Miners' Federation of Great Britain

THE LABOUR PUBLISHING
COMPANY LIMITED LONDON
38 GREAT ORMOND ST. W.C.1

First Published in 1924

C

PRINTED IN GREAT BRITAIN BY THE WHITEFRIARS PRESS, LTD.,
LONDON AND TONBRIDGE.

FOREWORD

Having had the opportunity of perusing, in our *Colliery Workers' Magazine,* the short but interesting and important historical survey by Mr. Williams of the development of Capitalistic Combines in the Coal Industry, it is a pleasure to be afforded the chance of recommending that his more ambitious efforts shall receive every encouragement from the workers in the Industry.

Knowledge is power, and the need of the moment is that the workers shall be put in possession of reliable information respecting the insidious entrenchment of the forces arrayed against them in their apparently hopeless struggle for a higher and better existence.

The Colliery Combine is synonymous with the Steel and Iron Combine, the Shipping Combine, and a multiplicity of interests other than coal producing and disposal, making the term " proceeds of the industry " unequal and entirely unfair in its application to coal owner and workmen.

I hope that this book will render assistance in arousing the workers to the imminent danger threatened by the operations of the combines to every hope and aspiration they possess.

THOMAS RICHARDS.

CONTENTS

CAPITALIST COMBINATION IN THE COAL INDUSTRY

CHAPTER I

THE MAIN FEATURES OF MODERN CAPITALIST ORGANISATION

The modern economic system presents three main features which distinguish it from all previous forms of economic organisation. First and foremost is the steady tendency towards large-scale production accompanied by an enormous increase in the capital of the average business undertaking. This is what the economists call the concentration of capital. The second important feature to be noted is the growth and progress of joint stock companies; and, thirdly, there is the decided tendency towards capitalist combination and monopoly. Many other features, of course, make the capitalist organisation of society unique in the history of the world; but practically all the distinctive characteristics of this system can, in the last analysis, be traced back to these three outstanding principles. In all spheres of industry, commerce and finance these forces are operating with far-reaching consequences. Their precise influence varies in accordance with the types of business concerns, and in particular with the peculiar conditions of different industries. But hardly a single line of business is entirely exempt from their influence. The coal mining industry is no exception to this general rule of capitalist organisation; indeed, in this industry in particular, the influence and effects of each one of them can be clearly traced. It is proposed in this section to deal with each separately; although it is necessary to emphasise that they are not independent

one of the other, but are all closely related to the whole structure of modern business undertakings.

The Concentration of Capital

One of the most significant facts in the evolution of the economic system during the last century is the development of large-scale production. In all the most important industries of the country production is now organised on an enormous scale. The typical industrial concern to-day employs thousands of labourers, owns huge machines and an industrial technique that can be worked only on a large scale. This process of large-scale production again demands enormous amounts of capital in order to operate it successfully; and, in turn, the huge accumulations of capital that appear with modern industry make possible the further expansion of the business unit. One reacts on the other; and in this way the scale of production constantly increases and the capital required by the average firm grows enormously. There are, it is true, some industries, such as tailoring, which do not show, at least to the same degree, the steady process of concentration displayed in other fields; but these are generally survivals of an earlier period of industrial organisation and are by no means typical of the modern age. In the staple industries of the country, however, the development of concentration has been exceptionally rapid; and in these industries large-scale production is certainly predominant. The technical equipment of these firms becomes steadily more complicated and more expensive. This absorbs more capital, and still more capital. The amount of capital invested in plant and machinery—in the technique of the establishment—grows out of all proportion to the amount of capital spent in wages by the firm. Thus there is a rapid increase both in the scale of production of the single business and in the amount of capital invested in the business.

The modern age has been well defined as the era of Big Capital; and for all the more important spheres of modern economic activity—manufacture, transport, finance—this is certainly true. The whole tendency of modern economic life is towards concentration into ever greater units. A century or so ago this tendency was almost unknown.

Production then was carried on by means of a few simple hand tools which cost comparativly little money, and which therefore needed no great outlay of capital. Modern economic organisation, on the other hand, demands gigantic producing concerns involving a capital outlay entirely beyond the reach of the small masters of a few decades ago. The thousands of small, dispersed producing concerns have given way to the present-day businesses which count the value of their capital in millions of pounds.

Illustrations of this could be taken from almost any important industry. From the staple industries innumerable examples could be taken at random. The coal mining industry provides some excellent illustrations of this all-pervading tendency of large-scale production and the consequent concentration of capital. The following figures will give some idea of the pace at which some of the leading coal concerns have expanded during their longer or shorter span of existence :

Powell Duffryn Steam Coal Co.

Year.	Capital.
1864	£500,000
1922	£5,000,000

Fife Coal Co.

Year.	Capital.
1895	£120,000
1922	£1,642,000

Ebbw Vale Steel, Iron and Coal Co.

Year.	Capital.
1913	£1,000,000
1922	£7,630,000

These examples could be multiplied almost indefinitely, but the figures given above suffice to show the general tendency.

This growth of large-scale enterprise and the consequent concentration of capital it involves has not been brought about merely by the machinations of cunning capitalists or the devices of subtle financiers. It has been dictated by the needs of the modern economic system. All the

conditions of modern business organisation demand large-scale enterprises, and these, as we have seen, demand large aggregations of capital.

In a society in which the leading economic principle is competition it is an imperative necessity for every individual capitalist to improve the technique of his business in order to maintain his position in the economic world. For this purpose part of his profits has to be continually reinvested in the industry in the form of new plant, new and up-to-date machinery, and the constant renovating of the entire organisation of the business. This inevitably results in the expansion of the enterprise, in large-scale production, and in the increase of the capital of the average unit of business. From this progressive expansion follows an increase in the productive capacity of the undertaking. New and expanding markets have to be found, and these as a rule, are found further and further away from the source of production. In modern times markets become ever more international in character; and only those concerns equipped with the best technical apparatus and organisation can meet the needs of these markets.

Thus through the interaction of industrial and commercial needs the conditions are created for the development of large-scale business uuits. Small-scale production, with very few exceptions, could not possibly flourish under these conditions. In all the leading lines of industry the little concerns have actually disappeared and made way for the larger enterprises. Thus the capital necessary to run the business grows as the business itself expands; and as the smaller enterprises gradually disappear the whole capital invested in a given line of industry is concentrated into a few units of enormous size. The concentration of production into a few great establishments means at the same time the concentration of the capital invested in these establishments. The unit of production increases in size as also does the sum of the capital invested When this process is spread over a period of a century or so it is bound to transform the entire structure of modern industry. For this process of concentration is not a mere passing phenomenon: it is rather a law that arises inevitably from the texture of the present economic system. Concentration of capital is the true-born child of capitalist development.

Joint Stock Companies

The leading types of capitalist enterprises nowadays grow very rapidly; and their expansion calls for the command of considerable quantities of capital to operate them. Large aggregations of capital are the necessary concomitants of large-scale production. An enterprise poorly endowed with capital stands no chance in the competitive struggle against its more vigorous competitors which have immense capital resources behind them. A modern capitalist concern requires enormous quantities of capital—amounts in many cases running, as we have seen, into millions of pounds. These huge requirements of capital are entirely beyond the reach of even the most wealthy capitalist; even a Rockefeller could not, out of his colossal fortune, provide the necessary capital for many a modern concern.

An individual owner of a business can expand the sphere of operations of his enterprise only out of the surplus profits of his own undertaking. The whole of his resources are invested in the business; one can expand only through the other. This, naturally, is a very great obstacle to the expansion of the concern, for it ties down the progress of the business to the necessarily limited resources of the individual owner. If this state of affairs had continued the gigantic scale of modern production would have been impossible.

It is to meet this difficulty of the limitation of individual resources that joint stock companies arise. From the middle of last century these have made very rapid strides to the fore; and, to-day, they are the predominant type of capitalist undertaking. Owing to its peculiar circumstances, the coal mining industry was, compared to some other industries, quite late in coming under the sway of the joint stock company type of organisation; but all the really big concerns in the industry are now organised on these lines. Individual ownership of mines clings on only where the output is comparatively insignificant, or where small undertakings are just commencing. Practically the whole of the coal output of Britain is produced by joint stock companies.

The enormous increase in the number of joint stock companies in all industries is strikingly illustrated by the

following table; incidentally it shows also the tendency for the average size of the capital unit to grow:[1]

Number and Paid-up Capital of Companies on the Register in Great Britain

Years ending	Number of Companies.	Paid-up Capital.
		£
April 30th, 1910 . .	51,787	2,178,619,734
,, 30th, 1913 . .	60,754	2,425,740,857
,, 30th, 1914 . .	64,692	2,531,947,661
,, 30th, 1918 . .	66,456	2,730,594,008
Dec. 31st, 1920 . .	79,541	3,508,012,486
,, 31st, 1921 . .	79,994	4,100,052,525
,, 31st, 1922 . .	84,104	4,180,785,838

These figures apply to the whole field of capitalist organisation; and while they have no direct bearing on the coal industry they indicate none the less the all-pervading influence and growth of this industrial type.

Several features distinguish the joint stock company from the old type of individual ownership; and its existence signifies an entire change in the nature of the ownership of capital.

A joint stock company is an association of several persons who contribute to an industrial or commercial undertaking in the form of subscriptions for shares or capital stock; a number of persons "pool" their capital. Thus the undertaking is no longer an individually-owned concern, nor is it dependent upon the resources of one person. The first result of the appearance of the joint stock company is that the limitations of individual ownership are removed. This gives industry far more expansive powers; and the joint stock company, originally a consequence of the development of large-scale enterprise, becomes in its turn a powerful stimulus to the growth of the business unit.

For the purpose of the expansion of industry, the company possesses all the advantages of the individually-owned firm and none of its disadvantages. In the struggle

[1] *Economist*, February, 1924.

of competition the small owner stands no chance against the almost inexhaustible resources of the corporation, and at a point where, through the exigencies of the struggle, the former would be driven to the wall, the company can continue the combat unhampered by the limitation of small resources.

In the case of the private firm the owner is himself responsible, in the case of debts, to the extent of his whole fortune. But the participators in joint stock enterprise are protected from this by law; and they are liable, in case of the company's failure, only to the extent of their actual investments in the corporate body. This limitation of liability has been, and is, an important means of fostering large-scale production. It provides, moreover, an interesting illustration of how, under certain conditions, the law can stimulate economic development. "New enterprises," says Professor Taussig, "both large and small, and especially those which are large, have been promoted by the limitation of liability. . . . Limitation of liability has been a chief factor in promoting large-scale operations under corporate organisation." [1]

Another result of the development of the company form of organisation is that the investment of capital has been rendered infinitely more flexible. Before the era of companies in their modern form, the owner of capital—means of production, material and money—had to be content with investing this capital in one industry. His prosperity or otherwise was entirely dependent upon this one industry. If this industry failed he became bankrupt. But the corporate company removes these irritating disabilities. The modern capitalist who has a surplus of wealth to invest does not invest the whole of it in one undertaking; he remembers too well the old adage about the danger of putting all his eggs in one basket, and the organisation of modern industry saves him from this extreme displeasure. This gives the owner of capital the possibility of investing in more than one company. He may become a shareholder in a colliery company, a railway company, a textile factory, and any other kind of company. His interests are not tied to one concern, but may be spread over a whole group.

[1] "Principles of Economics," Vol. I., pp. 89–90.

From this follows one of the most amazing, and, at the same time, most complicated phenomena of modern corporate companies—interlocking directorates. The directors of a company—generally five or six persons—are the real controllers of the business; and they hold those positions by virtue of their holding more shares than any one else in the concern. Most companies fix a certain minimum shareholding qualification for their directors, and this may vary from £100 to £10,000 in accordance with the magnitude of the capital. Hence it is that the wealthiest shareholders are the real controllers of the business; the surplus profit they realise from the company can be invested in another company, where again they qualify for a seat on the board of directors. After this process has been going on for some time a few individuals acquire directorates of, and then control, enormous aggregations of capital. This control is not confined to one line of industry or commerce, but extends over great groups of the most important spheres of business. Theoretically, of course, the small shareholder is supposed to have a say in the affairs of the company; but, like most theoretical propositions in this very practical world of business, this does not obtain in practice. In true democratic fashion the directors are elected at the general meeting of the shareholders, but the real influence that lies here is that of the large shareholders, who alone attend, and who vote by blocks of shares.

In all these matters (*i.e.*, the affairs of the company) the great body of the shareholders of a joint stock company are, save in a few exceptional instances, almost powerless, though a few of the larger shareholders often exert themselves to find out what is going on. (Marshall: "Principles of Economics," p. 361.)

The large shareholders therefore acquire complete control of the company's business; this soon extends again beyond the boundaries of companies, of industries, and even of nations.

In the pre-company days of industrial development, the owner of the capital took an active part in the control of the business. But the joint stock company has sharply divided the ownership of capital from the actual administration of the affairs of the enterprise in the sphere of production and its associate processes. In the coal

industry this division is quite glaring. The direction of production is in the hands of a salaried agent and a few deputies; quite often, it is true, these are also small shareholders in the company; but the great profits made in the industry are distributed to shareholders who, perhaps, have never seen a coal mine, and whose total contribution to the upkeep of the industry is the absorption of its profits year by year.

Modern industrial enterprises thus become impersonal in character. Businesses are owned by corporate companies; and the individuals which constitute these companies have a right only to the profits. The individual is merged in the company; no person or persons owns the concern, but only the company in its corporate capacity; and the size and power of this company are determined by the amount of capital it owns.

To meet the requirements of modern business organisation, the joint stock company is, under capitalism, the only possible type that can function. Only the corporate organisation can cope with the demands of a world market; it alone is capable of withstanding the shocks of industrial crises; and, finally, it is the only form through which capital can oppose the power of organised labour.

For all these reasons the joint stock type of organisation is admirably adapted to the coal mining industry; and it is not surprising to find that the organisation of capital in this industry has been increasingly patterned on the corporate model. In every part of the coal field the joint stock company is the predominant—in many cases, indeed, the only—type of business organisation. By far the greater part of the capital invested in mining is vested in the hands of companies; and it goes without saying that the company form controls a corresponding part of the output. Corporate capital, not personal direction, is now the ruling power in coal. The "enterprise" of individual ownership has given place to the close oligarchy of the directors' board room. The destinies of the undertaking are decided, not in the agent's office at the pit head, but at the conclave of the directors, who play the great game of capital, now against the shareholders, now against the consuming public, always against the worker. And very often they play the game with loaded dice. There is, as yet at least, no power to control them.

The Tendency towards Industrial Combination

Closely allied with the development of the corporate form of business organisation, and arising inevitably out of the concentration of capital, is another movement which in recent times has loomed large in the economic world. This is the centralisation of capital, or the combination under one financial control of hitherto distinct and separate enterprises. This is, in England in particular, a comparatively new phase of large-scale production; but at present there is hardly any leading industry—certainly no staple industry—immune from this all-embracing process of capitalist combination. "There is at the present time in every important branch of industry in the United Kingdom an increasing tendency to the formation of trade associations and combinations." [1]

The joint stock company transforms the individually-owned business into a corporate body. The modern capitalist combination, on the other hand, absorbs not only individually-owned undertakings: it absorbs whole companies and transforms them into one colossal unit of capital. This combination of capital implies the development of large-scale business units, and as concentration proceeds, the scale of production is continuously enlarged. Capitalist combination, however, has the distinguishing characteristic, not so much of large-scale production—though it is based upon and arises from this—as of large-scale management and of large-scale financial control; for the process of trustification in its various forms signifies, not merely an increase in the size of the unit of production, but the combination of several units under one central financial control. This is especially true of mining and other extractive industries where the expansion of the productive unit depends to so great an extent on natural conditions. The board of directors of the amalgamation controls the affairs of a number of previously independent concerns which have lost their identity in the greater unit of the combination.

The combination or trust acquires financial control over the separate enterprises which, in various ways, have been merged into it. These enterprises therefore lose their

[1] Report of Committee on Trusts, 1919, p. 2.

financial independence—for the control of modern industry is possible only through the power of finance; but in some cases their nominal independence is preserved for the purpose of retaining the custom and reputation they may have built up around their names. Thus, for example, when Guest, Keen and Nettlefolds absorbed the Gwaun-Cae-Gurwen Colliery Co., the latter still retained its name for commercial purposes, because, as the advertisements proclaim, "it produces the best anthracite coal in the world."

The tendency towards combination is a comparatively recent development in the economic world. Previous to the last two decades of the nineteenth century, combinations in the modern sense were hardly known. Since then, however, they have made very rapid strides. For some time, America and Germany were regarded as the classic homes of the trust movement. In America trustification has developed on an enormous scale; and now almost every kind of commodity is controlled by trusts and combines. The Standard Oil Trust was for a long time the most famous thing of its kind in the world; and it certainly represented one of the most complete forms of monopolistic fusion. In Germany, again, before the war trusts and cartels were found in all the important industries. The Rhine Westphalia Coal Syndicate controlled 93 per cent. of the entire coal output of the Ruhr and 54 per cent. of the coal output of the whole of Germany. Every other industrial country is becoming a fertile soil for the development of capitalist combines, syndicates and trusts; and industry, commerce and finance are increasingly becoming subject to the enormous control wielded by those gigantic concerns which spread their tentacles into almost every sphere of the economic life of modern nations.

The process of trustification in British industry is going on steadily. Almost every important industry reveals the same tale of the growing powers of the capitalist combination. During the nineteenth century British industry and commerce were predominantly competitive in character; and it was thought that Britain was immune from the monopolistic tendencies so evident in other countries. But British capitalism does not materially differ from German or American capitalism; and it was soon found, even as

early as the end of the nineteenth century, that British industry was being drawn into the vortex of combination and trustification. From this period to the outbreak of the war this process had made immense strides. Already there were some branches of industry which had been completely monopolised even before 1914. The war, through various circumstances, gave a tremendous impetus to the movement, and especially was this the case with those industries producing war material. At the end of the war it was found that one-fourth of the steel-producing undertakings in this country represented a productive capacity of more than three-fourths of the total steel output; while one-fifth of the pig iron concerns controlled well over one-half of the total productive capacity of the entire pig iron industry.[1] Over 70 per cent. of the total British output of soap is in the hands of one concern—Lever Brothers; and this concern in 1921 controlled a capital of £50,000,000. The whole railway system of the country outside London is under the control of four gigantic combines. The Steel Castings Association is an almagamation of twenty firms; the British Rail Makers Association comprises sixteen firms; while the Iron and Steel Wire Manufacturers Association embraces the grand total of twenty-nine firms.[2] In coal mining and its associated industries the extent of combination is indicated by the phenomenal growth of such firms as Baldwins, Ltd., which in the short span of twenty years has absorbed twenty firms which were previously independent. Examples could be multiplied indefinitely: the Report of the Committee on Trusts is full of such illustrations. What is important, however, is to grasp the general nature of the tendency towards combination, through which process a small and decreasing number of powerful concerns control an ever increasing proportion of the total output of commodities in almost every industry. The capitalist combine is now becoming the typical unit of business, and it represents an immense increase in the power of capital and its attendant control. To-day the mighty accumulations of capital concentrated in the hands of the single combine far surpass anything that commerce and industry have hitherto experienced. It is only with the

[1] *Economist*, January 5th, 1924.
[2] Report of Committee on Trusts.

development of combines and trusts that really Big Business becomes an accomplished fact.

Everywhere these combinations spring substantially from the same cause—competition. This is one of the chief impulses behind the combination movement. It is an axiom of economics and an experience of everyday business life that competition between sellers in an open market always lowers prices. This, of course, inevitably lowers profits. Already, with the extensive development of the unit of production, there is a tendency for the rate of profit to fall. With the development also of keen competition this tendency is further accentuated. To such an extent does this competitive struggle sometimes develop that it endangers the existence not only of one firm, but, very often, of the whole competitors in a given line of business. The obvious way out of the danger is some form of combination or common agreement whereby the price, and therefore the profit, may be regulated. This is amply borne out by the evidence given before the Committee on Trusts. One witness says :

> There had been a period of very keen competition, with the result that most manufacturers were making little, if any, profit. Many were practically ruined. It was thought that if the existing works were bought up by a company the trade would be placed on a more stable basis.[1]

Another witness pointed out that :

> Competition was so severe—both among the home manufacturers and from abroad—that no one could make anything out of the trade. Manufacturers were producing more than was really required, and were concerned only with cutting one another's throats. At first when an association was discussed some objected to losing their freedom, but things became so bad that their objections were overcome.[2]

The aim of production in modern times is profit. This is the red thread that runs through the whole of the economic ramifications and changes of the capitalist era. Owners of capital, in whatever line of industry, commerce or finance, always adopt that method of organisation that will yield the highest possible amount of profit. When, therefore, the economic storms inevitably created by

[1] Report of Committee on Trusts, p. 16.
[2] *Ibid.*

competition reduce profits, the various competing units come together and unite in some form of combination. Competition is superseded by combination.

It is, however, a false antithesis to regard competition and combination as two distinct methods or principles of economic organisation. This opposition ignores one of the salient features of the combine—its powers as a competitor. Only in very exceptional cases does a combine entirely eliminate competition. The absence of an absolute monopoly in any of its vital requirements compels the trust to compete. It may have to compete for a market for the sale of its products, or it may be compelled to enter the competitive arena for sources of raw material; and in most cases, more particularly if the tendency towards combination is already widely prevalent, it has to compete with other combines or trusts. Combinations, therefore, do not necessarily abolish competition; indeed, they tend rather to intensify it. For competition is no longer between small independent firms—a competition which is more or less haphazard, unconscious and accidental. The competitive struggle now resolves itself into a mighty struggle of gigantic combines. Competition becomes deliberate, systematic, organised. It is not only the resources and power of the individual owner that are now brought to bear on the conflict, but the organised resources of vast aggregations of capital; and with the power and capacity of systematic organisation bound up with these combines the competitive struggle acquires a new significance in the modern world.

The modern tendency towards combination of capital takes two main forms—the horizontal combine and the vertical combine. Horizontal combination is the union, under the central control of a single management, of a number of enterprises engaged in the same line of business; in this process, for example, coal mining companies are allied with other companies in the same line of business. The various units, while they retain, as a rule, their technical independence, lose, nevertheless, their financial independence; and after the establishment of the combine are managed as a unit. The independent competitors disappear; the central combine rises above them all. The owners of the independent companies now become shareholders in the new and bigger undertaking; and the

management of the absorbed enterprises passes over to the directors of the combine.

Of far greater importance, however, than the horizontal combination is vertical combination, commonly called the integration of industry. This type differs in many of its essential features from the horizontal form of trustification. It consists in the bringing together under single control of various industries through which a given commodity, in the successive stages of its manufacture, has to pass; and its object is to control all these processes from the acquiring of the raw material to the final disposal of the article to the consumer. The manufacture of steel products requires, for instance, iron ore as a raw material, coal for smelting, furnaces and machinery for the actual process of manufacture. Each of these processes, under the old conditions, was carried on separately by independent firms; but the vertical combination integrates all the successive stages of the process of manufacturing the finished article and brings them all under the unified control of one management.

In Britain there are plenty of examples of capitalist consolidation of both the horizontal and vertical types, and both have grown enormously in recent years, the latter type especially so.

> The most striking developments have been in the direction of concentration and integration by means of the consolidation of the interests of concerns previously independent.[1]

The urge towards vertical combination is generally provided by the need to control the services of raw material, for, during a period of rising demand, those who control the supplies of raw material can hold to ransom those firms engaged in the manufacturing process. Under such circumstances it is certainly to the advantage of the final producers to gain control of the sources and supplies of the materials they need.

This tendency towards the vertical form of combination has shown itself with exceptional force in the heavy industries; for in the production of finished steel goods a regular supply of iron ore and coal is of the greatest importance. Thus steel and iron works, coal mines and iron ore mines are brought under one financial control.

[1] *Economist*, January 5th, 1924.

A typical example of this is furnished by Baldwins, Ltd., which embraces, amongst other concerns, steel works, iron ore works and coal mines.

Messrs. Baldwins, Ltd., in acordance with the principle of making themselves as self-contained as possible in the matter of raw material supply, over a decade ago decided to acquire their own collieries in order to ensure regular and adequate supplies of coal to their own iron and steel works and kindred undertakings.[1]

In the heavy industries Armstrong, Whitworth & Co., John Brown, Vickers Son and Maxim, and Dorman Long & Co., are also examples of far-reaching vertical combinations with immense technical resources and a corresponding financial power.

This process of trustification—both horizontal and vertical—is one of the cardinal features of modern industrial development; and the coal industry, like practically every other industry, has increasingly come under its sway. The most important coal-producing concerns to-day are combines and consolidations of various kinds which are rapidly extending their power over the entire industry.

[1] "South Wales Coal Field" (Barrett and Wilson Lloyd, Cardiff), p. 46.

CHAPTER II

EARLY COMBINATION IN THE COAL INDUSTRY

INDUSTRIAL combination, in the modern sense, is a comparatively recent phenomenon in England, and dates back, in fact, only to the 'nineties of last century.[1] Even as late as that the movement was in its infancy: at the end of the nineteenth century capitalist combinations were few and far between; and it is only in the twentieth century that the trust movement really gets into its stride.

Combinations and monopolies, however, are by no means new in the economic development of England, nor, for that matter, of any modern industrial nation. The early history of trade and commerce in England was predominantly a history of monopolies of various kinds; and these monopolies were not merely descendants of the old gilds, but specifically products of the new conditions created by the advent of capitalism. Most, if not all, of the leading commercial ventures of the early capitalist era were in the hands of trading companies which, to a very great extent, had a monopoly in their particular line of business.

The Merchant Adventurers and the other trading companies which appeared at the dawn of the capitalist system had, through various means, managed to acquire an almost complete control of some kind of commodity in which monopoly was profitable. The first stage of capitalist development was, just like its latest phase, largely monopolistic in character. "At a higher stage of development capitalism has returned to the form of organisation peculiar to its youth." [2] On the basis of capitalist production the same forms repeat themselves;

[1] "Tendency Towards Industrial Combination" (G. R. Carter), Chap. I.

[2] Levy: "Monopoly and Competition," p. 313.

though there are certain vital differences between them corresponding to the transformation through which, in the meantime, the social mode of production has passed. The early capitalist monopolies rested on the immature development of industry ;[1] modern monopolies arise from the complete conquest of all forms of production by a highly-developed technique in the hands, and under the control, of powerful capitalist consolidations.

The progress of the early monopolies can be clearly traced in the history of mining—of coal in particular. From the middle of the sixteenth century the practice of granting monopolist privileges by the Crown became more and more general. According to the legal code of the time all the mines of England and the minerals deposited in them belonged to the Crown ; and in order to derive revenue from these possessions, it was the custom to grant to individuals, or more often to companies, a monopolist privilege to work these mines. Queen Elizabeth developed this practice to a fine art ; and her example was followed by all her successors up to the end of the seventeenth century. In 1568, " Elizabeth, by the Grace of God, . . . granted to Thomas Thurland, clerk, and Daniel Houghsettes, a German born, full power to work the gold, silver, lead and copper mines in various parts of the country, and to use them to their most profit and commodity."[2] By this grant the persons interested were incorporated into a " perpetual body politic " ; and had the right to assign to other " suitable persons " parts of the powers and privileges granted to them by the Crown.[3]

At this period the English coal trade was confined almost entirely to the North of England—mainly in the Newcastle district. The mines of this district must have been in a fairly flourishing condition. Even as early as this an extensive export trade was done with London.[4] Towards the end of the century it was becoming increasingly evident that the coal trade of the North was passing into the hands of monopolists. Shortly after 1582 the coal

[1] Marx : " Capital," Vol. III., p. 389.
[2] " English Economic History," p. 421. (Beand, Brown and Tawney.)
[3] Hunt : " Lead Mines of Cardiganshire," Section 1.
[4] Cunningham : " Growth of English Industry and Commerce," Vol. II., p. 175.

merchants of Newcastle acquired from the Crown the lease of extensive and rich mineral deposits in the neighbourhood of Gateshead. The prosperity of these merchants and the potentialities of the trade are indicated by the fact that the sum of £12,000 was involved in the transaction. These coal merchants had the sole rights of the trade, and formed, for the purpose of carrying on their trading activities, a company which became known as the Newcastle hostmen.

This, like most of the companies formed in the sixteenth century, was a purely capitalistic concern,[1] for the immediate and substantial rise in prices which followed its establishment proves conclusively that the object of the company of hostmen was the tightening of the market with a view to increased profits. In the short span of eight years—from 1582 to 1590—the price of coal on board ship at Newcastle rose by 50 per cent.—from 6*s.* to 9*s.*[2] per chaldron.[3] Repeated complaints against the "ingrossing" of the coal also testify that the monopoly was used by the hostmen to raise prices.

A further step towards the monopolistic control of the coal trade was made in 1600, when a Hostmen's Gild, composed of forty-four coal-owning partners, was formed. This gild had a monopoly of all the chief mines of Newcastle and district; moreover, it possessed the sole right to sell the coal to the ships on the Tyne. For these exceptional privileges the hostmen were prepared to pay; indeed, their monopoly was so complete that they could very well afford to pay. In order to become incorporated as a gild patent, empowered with all its trading prerogatives, they proposed to the Queen that they pay to her a 1*s.* per chaldron for all sea-borne coal. This offer, needless to say, was accepted by the Queen; and it was for many years a regular source of revenue to the Crown.

To secure the harmonious working of the gild, the forty-four members appointed, first of all, a grand committee of twenty-four. This was the central authority of the gild, and its word was law within the gild. In its turn this committee was again sub-divided into four groups, which

[1] Cunningham: "Growth of English Industry and Commerce." Vol. II., p. 48.

[2] Dunn: "Coal Trade of the North of England," pp. 21–22.

[3] The Newcastle chaldron was roughly 53 cwt.

assigned to their respective units the amount of coal to be sold. By means of this hierarchic division of functions, therefore, the gild sought to eliminate competition amongst the members. No group was allowed to sell more than its share.

The Hostmen's Gild therefore had an entire monopoly of the coal trade—one of the most formidable monopolies in the history of any trade. It was, in the first place, legally sanctioned, for it was granted by an ordinance of the reigning dignitary; secondly, it embraced practically all the coal owners of the North, for even though there may have been coal owners outside the gild, their competition must have been insignificant; thirdly, the sale of the coal of the Tyne was entirely under its control, and only through the gild could any coal be sold to the ships which coasted around the district.

The later history of the gild is not clear. The existence of monopolies in the staple trades was the cause of considerable grievance amongst the "free" merchants, and manufacturers; for the inevitable result of these monopolies was an increase in the price of raw materials. The representatives of these classes in Parliament protested vehemently against the practice of granting patent privileges to companies and corporations. Through the power of this political pressure a royal proclamation revoked all monopolies in 1609. This measure must have proved ineffectual, for a further Anti-Monopoly Act was passed in 1624. In 1636 the process was repeated.

To the needy Charles I., however, who was on the throne by this time, the revenue derived from the monopoly granted to the hostmen was too tempting for this monopoly to be abolished altogether. Even at the time of the passing of the Anti-Monopoly Act of 1624 the privileges previously granted to the hostmen were continued, and two years after the Act of 1636 became law the king entered into further bargains with the hostmen. These incidents serve to show how profitable a source of revenue to an impecunious monarch the coal trade was at the time.

That, in spite of prohibitory legislative enactments, the Gild of Hostmen continued, is proved by the repeated complaints against its "ingrossing" or "cornering." An extensive anti-monopoly literature arose during the first half of the seventeenth century. From one of these

pamphlets [1] we learn that in 1620 the free hostmen had an entire monopoly of the selling of coal on the Tyne.

> They [the free hostmen] will not suffer any of the coal owners in any of the two counties [Northumberland and Durham] to sell their own coal, but . . . must sell their coal to the free hostmen at what price these please. If any shall presume to sell such coal immediately to the ships, the hostmen seize such coal. (Gardner, pp. 65–204.)

Most of these polemical writers tend to exaggerate their grievances, but there can be no doubt that Gardner was right in this at least; for when, in 1638, Charles I. renewed the patent granted to the hostmen he ordained that the gild should be entitled "to attach all the coal exported by ship except through the gild."

This state of affairs continued up to the time of the appearance of Gardner's pamphlet; for it was one of his "desires to Parliament" that the "Coal Owners of Northumberland and County of Durham may have free liberty to sell their own coals to ships and not to be inslaved by the free Hoast men of the Town of Newcastle." [2] Between 1642 and 1644 the "oppressive monopolies of the Hoast men" had caused coals to be "four pound a chaldron"; and "if the owners of every colliery had free liberty to sell their coals to ships immediately, Tinmouth haven would afford two hundred thousand chaldrons of coal in a year more than now are vented, which would reduce the late exorbitant rates of coal in the city of London." [3]

From this contemporary evidence it seems that the free hostmen exploited their privileges to restrict the sale of coal in order to increase the price in London and elsewhere. Exact figures to prove Gardner's assertions are difficult to obtain, but it is certain that the price of coal was materially raised during the course of the gild's existence. According to the investigations of Thorold Rogers, [4] the prices paid at Cambridge for sea coal from Newcastle were:

[1] "England's Grievances Discovered." By Ralph Gardner. Newcastle, 1655.
[2] *Ibid.*, p. 60.
[3] *Ibid.*, pp. 204–205.
[4] "History of Agriculture and Prices," Vol. I., pp. 360–384.

1583 . .	11 shillings per chaldron.
1613 . .	15 sh. 2d. per chaldron.
1633 . .	17 sh. 8d. per chaldron.
1653 . .	21 sh. 0d. per chaldron.

How much, however, of this increase was due to the monopoly of the hostmen and how much to other factors, it is again impossible to say. But Gardner was convinced that the monopolists had greatly increased the price of coal, for, by reason of this monopoly of coals, "the poor in these later years have found it a hard matter to fortify themselves against cold." [1] Some of Gardner's accusations were flatly denied by the hostmen; others, again, were justified on the ground that they paid £8,000 annually to the Treasury, and therefore had a perfect right to have their privileges protected.[2]

In 1653, as a result chiefly of the agitation led by Gardner, a Parliamentary Committee of Trade and Corporations was set up to conduct an inquiry into the Tyne coal trade. Gardner had been instrumental in getting a huge petition presented to the Legislature demanding a redress of grievances. The Committee set up as a result of this petition presented a Bill to Parliament which decreed that "coal owners in the respective counties may and hereby have liberty to let or lease of their Coal Pits and to sell their coals to whom they please as well to Ships as elsewhere, for the benefit of the public." [3]

Gardner, doubtless, was the moving force behind the Bill, and he hoped that Parliament would respond to his demand to free the coal trade from this "most oppressive of all monopolies." [4] The Bill, however, never became law. Parliament then was concerned with more important political matters; and the very year the petition was presented, Cromwell carried the sword into Westminster and dispersed the assembly. The exigencies of the political situation saved the hostmen from the most formidable attack they had yet been subjected to.

Somewhere about 1665 the gild of hostmen, at least in its official form, seems to have disappeared. The causes

[1] Gardner: "England's Grievances Discovered," p. 205.
[2] Cunningham, *op. cit.*, p. 161.
[3] Gardner: "England's Grievances Discovered," p. 124.
[4] *Ibid*, p. 201.

of its formal breakdown are, however, by no means clear. But although the official form of the gild no longer existed, its substance still remained. It is true that the charter of the hostmen was not renewed after 1679, but a monopoly continued in the coal trade throughout the seventeenth century. In 1689 the power of the Crown to grant monopolies was taken away, and the previous prerogative of royalty to own the mineral deposits was handed over to the landlords.[1] Some monopolies, however, had become too deeply rooted to be eradicated by the simple expedient of changing one king for another. The coal monopoly was one of these.

In the early part of the eighteenth century a series of laws attempted to eliminate the monopolist control of coal. An Act of 1711 declared for the freedom of the coal trade and decreed that any attempts at monopolisation were illegal. It evidently did not succeed in its object, for it is known that a charter of coal owners existed in 1720. Again, in 1730, the law was resorted to as a weapon to put down monopolies in coal. This Act of 1730 does not appear to have met with any better success than that of 1711. In 1738 a number of petitions was presented to Parliament demanding the removal of the coal monopoly ; [2] and again two years later, during the extremely hard winter of 1740, the attention of Parliament was directed to the hardships inflicted on the people by the exorbitant price of coal.

It is hardly likely, judging by the available evidence, that the monopoly of the hostmen ever really died out.[3] Despite all the vigorous efforts of the legislature to suppress it, a combination of some character or other existed in the coal trade. In the eighteenth century this trade was rapidly expanding, and coal mining was attracting the attention of capital and capitalists to an increasing extent. An old chronicler [4] tells us that in 1649 some "South Gentlemen have, upon great hope of benefit, come into this country to hazard their monies in Coale Pits. Master Beaumont, a gentleman of great ingenuity and rare parts, adventured into our mines with his thirty

[1] It is significant to note that this marks the beginning of "royalties" and "wayleaves" in the modern sense.

[2] Brand: "History of Newcastle," Vol. II., p. 271.

[3] Palgrave: Dictionary, Vol. III., p. 615.

[4] Gray: "Chorographia" (Newcastle, 1649), p. 25.

thousand pounds; who brought with him many rare Engines, not known then in these parts, as the best to boore with, Iron Roddes to try the deepnesse and thicknesse of the Coale, rare Engines to draw water out of the Pits." As early as the seventeenth century a patent had been granted for pumping water out of the mines; whilst in 1753 Menzies devised a contrivance for raising coal from the shaft by balancing against a bucket of water. Within three years from this the steam engine began to be applied to coal mining; and this entirely revolutionised the whole technical and economic organisation of the industry.

The first result of the application of steam to mining was that it enabled numerous new mines to be opened up on the Tyne and Wear; secondly, it led to an increased output from the mines already in existence. New mines were opened up and new mining districts began to be exploited. "It [the steam engine] had become directly applicable to the drawing of coals from the mines, which enabled an extraordinary increase of quantity to be realised, and that, too, of a quality superior to the produce of many of the old districts."

Hitherto, Newcastle had been for centuries the chief centre of the coal trade; but from the middle of the seventeenth century the coal trade of Sunderland had steadily increased. Once the steam engine had become a part of the technique of coal mining, Sunderland became an ever more formidable challenger to the monopoly of Newcastle. The application, too, of steam to work the various processes in the iron industry created an enormous demand for coal. To meet this demand a feverish activity was displayed everywhere in the coal industry. In other industries—notably textile—the increasing use of machinery made further demands for coal. The output of coal increased by leaps and bounds. Precise figures for the period are not obtainable; but it was estimated by a commission on the coal trade [1] that the output increased as follows:

1660 . . .	2,148,000 tons.
1700 . . .	2,612,000 ,,
1750 . . .	4,773,828 ,,
1770 . . .	6,205,400 ,,

[1] Report of the Coal Trade, 1871, Vol. III., p. 9.

Such a phenomenal increase within so short a time was bound to lead to a more intense competition amongst the coal owners. Price cutting and lowering of profits are ever the result of competition. "As more collieries were opened below the Tyne Bridge . . . every facility for exportation was increased both by situation and cheapness. Hence a rivalry took place between the ancient and the new and improved collieries. The contention between them was long, arduous and mischievous. It was which of them should by whatever means engage and keep possession of the market and the public supply. The superiority of the new collieries in quality and adjacency to the river was naturally and by the aid of steam engines so great that the inferior collieries were obliged, in order to keep up competition, to resort to a practice so blameable that nothing can justify it except the plea of self preservation." [1]

Whatever form the old gild of hostmen had taken since its official disappearance somewhere about 1665, it was certainly unfitted to deal with the totally unprecedented situation in the coal trade caused by the rapid advancement of industrial technique. The hostmen had long been troubled by the rivalry, active and potential, of the new mines developing in Sunderland. As early as 1661 they sent a petition to Parliament demanding the imposition of a duty of 1*s.* per chaldron on all coals exported from Sunderland, "which town was fast growing into rivalry." [2] The constitution of the gild allowed for the suppression of competition amongst its own members, but it was now confronted with a new situation. The danger now was not competition from within, but from without; it was now a conflict between Newcastle and Sunderland, which, although perhaps less romantic, was not less severe, than the conflict of cities in ancient and mediæval times.

The hostmen's gild was helpless to cope with this new difficulty: it had already adopted every method to put down the Sunderland trade, from presenting petitions to actual seizure of the coal of the Wearside merchants. All, however, to no purpose; the progress of economic

[1] Edington: "Treatise on the Coal Trade," p. 57.
[2] Dunn, *op. cit.*, p. 17.

development was cutting the ground from beneath its feet. The rapid expansion of the industry "rendered abortive all attempts to preserve the old monopoly." [1]

Particularly intense competition leads to one of two results: some agreement between the competitors, or the complete suppression of many by one powerful competitor. In the conflict of cities in the ancient world the latter method was generally adopted.[2] With Newcastle and Sunderland the result of the competitive combat was an agreement. "Of this contention, after lasting some years, both parties became weary; they found it prudentially wise to unite in interest, to equalise the prices, to regulate the transmission from each colliery, and to feed the public at their own prices and according to their own convenience: hence their union became a direct monopoly: it was agreed that the market should be fed, and not glutted." [3]

Fierce competition drove the coal owners to combine; and it was this competition that led to the establishment of one of the outstanding examples of combination in the history of the coal trade. After 1760 several attempts had been made to bring the coal owners of Newcastle and Sunderland together; for "the influx of collieries produced such an over-supply that regulation was imperatively called for." [4] In 1771, in consequence of acute irregularities, a meeting was called of the Newcastle and Sunderland coal owners. "The result of such meetings produced a determination to fix the Prices of Coal . . . and the agreement seems to have been common alike to the Tyne and the Wear." [5] From this meeting of 1771 arose the historic Limitation of the Vend, which, with a few minor interruptions, continued till 1844. It was a direct product of the ruinous competition which raged just before its formation; and in order to save themselves the coal owners of Newcastle and Sunderland had to come to a common agreement. "There is no doubt they have seen it fitting, upon good and substantial grounds, to prefer timely and rational concessions to an internecine,

[1] Dunn, *op. cit.*, p. 45.
[2] Kautsky: "Origin of Christianity," p. 79.
[3] Edington: "Treatise on the Coal Trade," p. 57.
[4] Dunn, *op. cit.*, p. 65.
[5] Report, 1800, p. 5.

implacable strife, the end whereof no man can tell; and in this they have acted wisely for themselves."[1]

The new combination of the coal owners was not a direct descendant of the old gild of the hostmen, although they had many features in common. Since the days of the hostmen an entire revolution had taken place, not only in the coal trade, but in industry as a whole. The organisation of capital is always closely related to the technique of industry, and rapidly changing technique soon renders obsolete the older forms of organisation. The hostmen's gild had already become antiquated: it was the product of an earlier period, and its extinction was sealed by the technical revolution which brought into being the new Limitation of the Vend.

[1] "State of the Coal Trade" (Anon., London, 1843), p. 15.

CHAPTER III

THE LIMITATION OF THE VEND, 1771–1844

THE agreement of 1771 entered into by the coal owners of the Tyne and Wear aimed at regulating the coal trade in such a way that the maximum revenue would accrue to the owners of the capital invested in the industry. In order to do this effectually it was necessary to get a control over the market sufficient to prevent other competitors lowering prices. From the outset, therefore, one of the chief objects of the combination was to control the market.

For the realisation of this object the situation of the coal trade of the country was eminently favourable. During the latter half of the eighteenth century London was the chief English coal market. The following table, showing the distribution of the northern coal trade in 1791, will give an idea of the immense importance of London as a coal-consuming centre: [1]

Coal sent to foreign countries .	264,944 tons.
Coal sent coastwise . .	289,658 ,,
Coal sent to London . .	1,150,202 ,,

The combination that could control prices on the London market therefore had a virtual monopoly of the coal trade of the country. It was on this control of the London market that the Limitation of the Vend was really based, and its fall in 1844 synchronised with its failure to continue the control.

There can be no doubt that the Newcastle and Sunderland coal owners controlled the London market. The northern coalfield was the most highly developed district in the country. For many years it had no serious competitor. Its production of coal far exceeded the production of all the other coalfields together. Again, the geographical

[1] Report, 1871, p. 12.

position of the northern coalfield endowed the owners thereof with a tremendous monopolistic advantage. In the early days of the Vend, the first track of railway had not been laid, and the chief means of transporting coal was by sea. From time immemorial a flourishing trade had been done by sea between London and Newcastle. This trade had expanded to the extent that the demand for coal had increased in London, and new seams were tapped and worked in the North. In the pre-railway period no inland coal district could challenge the supremacy of the North in the London market; and those coalfields with a favourable geographical location were too backward technically to be of any serious danger to the monopoly of the north of England.

Technically, economically and geographically, the northern coalfield had in its favour all the circumstances necessary to exercise a monopoly over the most important market of the time. Its undisputed sway over the London market is shown clearly by the following figures of coal exports from various districts into London in 1765:

Durham and Northumberland	763,383 tons.
Lancashire	223 ,,
Yorkshire	439 ,,
Somerset	24 ,,
South Wales . . .	4,003 ,,
Scotland	6,378 ,,

The only district which, through its proximity to the coast, could compete with the North in the London market was South Wales. But the coal industry here was as yet in its infancy. The great modern exporting centres were then unheard of, and of the total quantity sent from South Wales to London, over three-fourths was exported from Milford, in the extreme west of the coalfield.

The sway of the North continued unchallenged. In 1780 its monopoly of the London market was as absolute as a monopoly could very well be. The total amount of coal imported into London in this year was 866,627 tons, and of this the northern ports had exported 854,299 tons.

It was under such favourable circumstances for controlling the market that the combination of 1771 was formed. A monopoly of the London market was assured, and the owners could fix what they called "fair" prices. The

Vend also had a monopoly of production: for it arose to suppress competition amongst the coal owners in Northumberland and Durham. On the basis of this twofold monopoly the compact of 1771 was formed.

The precise nature of the agreement entered into by the coal owners of the Tyne and Wear was not made clear at the time: for, according to the law of the land, combinations in restraint of trade were illegal; and, through the changed political circumstances of the country, it was no longer possible to shelter a monopoly behind the Throne.

In spite, however, of the secrecy surrounding the agreement, it was manifest that the aim of the coal owners was to prevent the cut-throat prices of competition. A scale of prices was drawn up, and no member was allowed to sell his coal below the fixed price. This fixed price was graded into several categories, for then, as now, different qualities of coal were produced. The best coal would always, of course, command the highest price in the London market; and it was one of the chief tasks of the Vend committee to fix the prices of the inferior coal at a sufficiently high point to enable the working of the mines producing these coals to be remunerative. In 1771 coal prices at Newcastle ranged, according to the quality of the coal, from 12*s.* to 15*s.* per chaldron. In 1813 Newcastle coal was graded into as many as seven classes, the prices of which ranged on board ship from 34*s.* 6*d.* per chaldron for the first class to 22*s.* for the seventh class. This system of graduating prices prevented any competition between the best and the worst mines, and provision was made for regular profits for both.

Closely allied with the price-fixing principle adopted by the coal owners was the principle of restricting and fixing the output of the various collieries. This was, perhaps, the distinguishing feature of the agreement. The central committee of the coal owners in the combination determined, in relation to the probable demand of the market, how much coal should be produced by each district, and, in turn, by each mine, in accordance with its productive capacity. This was the fixing of the Vend.

It might at first appear as if this was an entirely unnecessary and self-imposed restriction on the owners of the richest and most easily worked mines; for it is obvious

that without the limitation of the Vend they could exploit their mines to a greater degree and produce a greater quantity of coal than was allowed by the Vend. Such a method, however, would lead to a lowering of prices. So long as the Vend existed prices could be forced up by limiting the supply, and this in all probability more than compensated them for a restriction in output; and the anonymous author of a pamphlet [1] on the coal trade was convinced that "the owners of the best and richest mines entered the compact of the Vend more out of apprehension than of conscience."

Only in these very general terms is it possible to describe the structure of the Vend during the earlier years of its existence. The agreement was made in secrecy, and the utmost precautions were taken to prevent the terms from being circulated.

Through some reason or other—probably some internal dissension—the agreement of 1771 became inoperative about 1780, and for a brief period combination gave way to competition, with disastrous results to the profit of the industry. It was a more intense competition than anything the coal trade had hitherto known. The industrial revolution was the means of opening new mines and applying new technical apparatus to work them. There was now a larger number of competitors, who were also better equipped for the competitive struggle. So fierce did the struggle become that some mines failed entirely. "At this period both ships and collieries were a dreadfully losing trade; the primary cause being too many mines working at one time; whilst the profits were reaped by the merchants in London." [2]

The effect of this competition was ruinous to many of the coal owners. Prices were reduced and profits were lowered. Memories of the "fair profits" of the days of the agreement were still fresh in the minds of the coal owners, and it was evident that the only way to return to prosperity was to revive the combination.

After about six years of the most fierce competition this step was taken. "About the year 1786 or 1787 a particular species of compact was resorted to. The compact was a general one between all the collieries of the

[1] "State of the Coal Trade." London, 1843.
[2] Dunn: "Northern Coal Trade," p. 26.

Wear and those of the Tyne. Its avowed object was to apply a remedy to a heavy depression in the price of certain kinds of coal, and to avert the danger connected with it, of the abandonment of several collieries." [1]

A great deal more information is available concerning the terms of this new agreement. It had necessarily the same object as that of 1771; and it is more than probable that its methods, too, were very similar in character to those of the earlier agreement.

Before the Commons Committee on the Coal Trade, a witness, who was part owner of three collieries and chairman of the committee of the coal owners, explained the nature of the regulation. "When it is understood by the coal owners," he explained, "that all the parties interested in the coal trade on the Tyne and Wear are willing to enter an arrangement of this nature, a representative is named for each of the collieries; these representatives meet together, and from amongst them choose a committee of nine for the Tyne and seven for the Wear; this being done, the proprietors of the best coals are called upon to name the price at which they intend to sell their coals for the succeeding twelve months; according to this price the remaining proprietors fix their prices; this accomplished, each colliery is requested to send in a statement of the different sorts of coal they raise and the powers of the colliery; that is, the quantity that each particular colliery could raise at full work; and upon these statements the committee, assuming an imaginary basis, fix the relative proportions as to quantity between all the collieries, which proportions are observed, whatever quantity the markets may demand. The committee then meet once a month, and according to the probable demand of the ensuing month, they issue so much per thousand to the different collieries; that is, if they give me an imaginary basis of 30,000, and my neighbour 20,000, according to the quantity of our coal, and our power of raising them in the monthly quantity, if they issue 100 to the 1,000, I raise and sell 3,000 during the month, and my neighbour 2,000; but in fixing the relative quantities, if we take 800,000 chaldrons as the probable demands of the different markets for the year, if the market should require

[1] Report of Select Committee, 1800, p. 5.

more, an increased quantity would be given out monthly, so as to raise the annual quantity to meet the demand." [1]

From this description it will be noted that the agreement very closely resembled the modern cartel, for the essence of a cartel is that it is an agreement between competing firms or individuals to fix prices and, by the restriction of output, to reduce the intensity of competition. Both were accomplished by the regulation of the Vend; and it will certainly be no straining of terms to designate it as a coal cartel.

The central committee had supreme power to regulate the output. It was part of its work to estimate the demand of the market. First of all the total quantity decided upon by the committee was apportioned between the Tyne and the Wear coalfields in the proportion of three to two; [2] that is, if the total estimated quantity were 5,000 tons, the Tyne coal district would produce 3,000, and the Wear coalfields 2,000. After apportioning to each district the quantity which the committee had decided it should produce, the next step was to allocate to every colliery in the district a share of that quantity. Naturally this share would vary with the size of the pits, the technique employed and the qualities of coal produced.

The existence of the Vend depended on the way the individual colliery owners accepted the conditions laid down by the central committee. In order, therefore, that no colliery should produce more than its allotted share, an elaborate system of fines was adopted by the committee. A mine producing more than its share was compelled to pay a sum of money to the committee; this amount would vary with the excess produced. Moreover, if a colliery produced too much one month, its allotment would be reduced the following month; while those collieries which had not produced in one month the quantity they were entitled to, were allowed during the next month to make good the deficit.

There was always the danger, however, that the delinquents would secede from the cartel rather than pay the fines. In case such circumstances should arise "each party was required to deposit in the hands of the chairman a promissory note, payable on demand, to the amount of

[1] Commons Report, 1830.
[2] Report, 1836, L. iv.

£20 per 1,000 on the basis, as the security of the payment of such fines as might be enacted as penalties for violating the regulation." [1]

There were two obstacles which stood in the way of the harmonious working of the cartel. The first of these was the existence of rich and poor mines. Natural advantages enabled the rich mines to produce a greater output, and, what was even more important, to produce it at a lower cost. Such a wide disparity of conditions existed between the various mines that it was impossible to lay down fixed standards for all. This fact has been one of the greatest impediments to the progress of amalgamation in the mining industry; and it is the rock on which more than one scheme of trustification has been wrecked.

It was the cause of sore dissensions within the cartel, for the best collieries were continually tempted to produce more than their allotted share. The owners of the worst collieries repeatedly complained of this; and it was the greatest difficulty the committee experienced "to satisfy the parties that they had their just proportion of the Vend in the general arrangement." [2] This difficulty existed almost from the inception of the agreement: as early as 1800 the complaint was heard that "the superior collieries . . . are frequently some hundred chaldrons over such monthly allotted Proportion." [3] By producing a certain quantity above the allowed quota, the superior collieries were enabled to pocket for themselves the extra profits; for they generally sold the excess quantities at the prices fixed by the agreement, which were, of course, monopoly prices.

Throughout the history of the Vend constant complaints were heard about the tendency of the best mines to exceed their share of the allotted total. These complaints, naturally, came from the owners of the inferior mines, but although these resented very much the tactics of their stronger associates, they were, nevertheless, too dependent on the protection afforded by the cartel to break away from it. A writer in 1843 says that, "in the event of an open breach, the best coals and largest collieries would take the lead in supplying the markets, that the reduced prices would be in some measure made up by the enlarged

[1] Report, 1836, pp. 6, 7.
[2] *Ibid.*, p. 6.
[3] Report, 1800, p. 137.

quantities, and that, eventually the smaller collieries and inferior coals would be driven out of the market." [1]

Every colliery, especially the most easily worked, strove to obtain as large an allotment as possible, and, in order to secure this, adopted many subterfuges. It was a very common practice for some colliery owners to sink two or three pits to work a seam of coal which could well be worked by one shaft, and after the allotment had been issued in accordance with their productive potentialities, to leave one or more of them idle; for a single pit offered all the necessary facilities for producing the quota given to two or more pits. Another device was the erecting of expensive steam plant, in order to give the committee the impression that the capacity of the group of pits was much greater, and that the quota given to them, therefore, should be materially increased. "In this manner a capital of £160,000 to £200,000 might be invested for setting in motion a colliery allowed to raise and sell only such a quantity of coal as might be produced by means of an outlay of one-fourth or one-fifth of that amount." [2]

This method secured for the owners of these collieries a much larger proportion of the Vend than they were really entitled to, while the Vend allowed to the inferior collieries would be reduced as a consequence. Inevitably, this antagonism within the cartel—an antagonism implicit not so much in the terms of the agreement as in the very structure of the coal mining industry itself—was a constant source of dissension.

The second obstacle in the harmonious working of the Vend agreement was the existence of widely different qualities of coal. This second obstacle was closely allied with the first, although, perhaps, not quite as important. The prices of the coals varied with the quality, and it was a matter of the greatest difficulty to fix upon such prices as would give satisfaction all round. The regulation of 1787 had fixed the prices of the various qualities of coal as follows: [3]

	Tyne.	Wear.	
Best quality .	20*s*.	18*s*.	per chaldron.
Second quality .	18*s*.	15*s*.	,,
Inferior . .	15*s*.	14*s*.	,,

[1] Quoted by Dunn, p. 236.
[2] Porter: "Progress of the Nation," p. 219.
[3] Dunn, p. 45.

Such a wide disparity in quality and prices created any amount of room for dissension amongst the members of the Association. There was always the possibility that the scale of prices decided upon by the owners of the best mines would not allow of the fixing of a remunerative price by the owners of the less favourable mines. In 1834, for instance, the price of the best coal was fixed at 22*s.* 6*d.* per chaldron. No sooner, however, was the agreement made than it was found that this price was too low to allow of the selling of the inferior coal at a "fair profit." The proprietors of the inferior mines forwarded their complaints to the Vend Committee; and it was found necessary to readjust all the relative prices so that the worst coals could find a market.

It is not surprising, therefore, that there were repeated dissensions within the cartel. Sometimes these differences became so acute that they led to the temporary suspension of the agreement. Already there had been a temporary abandonment in 1780; another suspension occurred in 1799; while both in 1829 and in 1833 the agreement was annulled. These dissensions recurred regularly, in spite of the fact that most elaborate machinery had been arranged to deal with all disputes. "Every difference which may happen between the parties is referred to two independent persons who, if they differ, appoint an Umpire; the great object of the Regulation being to enable all to have a fair proportion; and all to have some profit." [1] All disputes were referred to the umpire and the representatives, and it was their business to make a settlement in every case possible; for the owners were convinced that an "unrestricted, full and impartial reference of all matters in dispute, is the only general principle upon which an equitable and permanent regulation can be carried into effect." [2] Many disputes were settled in this way, but there were some too deeply rooted for mere arbitration. and these accounted for the occasional disruptions of the cartel.

These temporary suspensions, however, only occasionally endangered the existence of the combination; for the competition of the owners amongst themselves was soon a sufficient spur to revive it. So long as the northern coalfield could control the London market, the advantage of

[1] Report, 1836, p. vi.
[2] *Ibid.*, p. 6.

this was so great as to overcome all possibility of internal dissension permanently destroying the cartel. In the early days of the agreement the northern coal owners, as we have seen, had an established monopoly in the London market, and it was upon this monopolistic control that the existence of the cartel depended. This monopoly continued until well into the 'thirties of the nineteenth century. Transport was still too backward for other districts to become active competitors with the North. A few canals had, it is true, been constructed ; but even the most highly developed canal system was no substitute for the transport facilities offered by an efficient railway service. Geographical advantage still favoured the North. As late as 1835 the northern coalfield, through the organisation of the Vend, still supplied by far the greatest quantity of the coal used in London, as the following figures show : [1]

Coal imported into London in 1835

From the Vend area .	2,190,695 tons.
" Yorkshire . .	27,394 "
" Scotland . .	40,955 "
" Wales . . .	35,420 "

Most of this coal was transported by sea : for, although by this time some progress had been made in the construction of railways, inland transport was as yet too backward to bear a heavy traffic in coal. London, therefore, depended mainly on sea cargoes for its coal supplies, and the amount conveyed by land was comparatively insignificant. The following table shows again what an immense advantage was enjoyed by the coal districts situated near the sea, and in particular by those districts with an industrial technique sufficiently developed to enable this advantage to be exploited : [2]

London Imports

Year.	Tons Sea-borne.	Tons Inland.	Tons Total.
1832	2,130,608	10,742	2,231,350
1833	2,035,410	4,395	2,039,805
1834	2,045,781	1,862	2,047,643
1835	2,302,608	1,004	2,303,612

[1] Report, 1836, p. 225.
[2] Report, 1871, p. 43.

These figures indicate clearly what an immense monopolistic power was vested in the hands of the coal owners of the North organised in the cartel. Through the geographical and economic advantages they enjoyed they could fix prices, and extract enormous profits out of the London consumer. This advantage of exploitation was the one permanent cohesive force that kept the cartel together, and, but for a few exceptional instances, overrode all the petty squabbles that interfered with its internal harmony.

High prices in the London market were always a means of attracting competition from other coalfields. To the extent that other coalfields developed, this naturally increased, and potential competition in the London market was a source of great concern to the coal owners of the North. In the matter of price fixing, therefore, the cartel had always to take into consideration the probable effect of that price in inducing other districts to compete in the London market. Mistakes were made occasionally, due, probably, to the excessive zeal of the coal owners for extra profits.

In the Regulations in 1828 we found we had fixed our prices too high; the consequence was it created an immense influx of coals from Scotland, Wear and Yorkshire; and more especially from Stockton; so that, when the coal owners met together to enter into an engagement for 1829, we were obliged to fix our prices a little lower—about one shilling the English chaldron—in consequence of the competition that was created. (Report, 1830, p. 225.)

These fears of the coal owners had, however, very little basis in fact, and the members of the cartel tended to exaggerate the importance of competition from other districts. Their plea was prompted partly, no doubt, by the desire to prove to the legislature that they did not hold a monopoly. Before the Parliamentary Committee of 1836, Mr. Branding, the owner of extensive collieries in Northumberland and Durham, and a member of the cartel, was convinced that the northern coal owners did not hold monopolistic powers over the London market. In reply to a question he said: "I do not consider the present agreement to be a monopoly. I understand a monopoly to mean when the sale of the article is in your own hand. If we were in possession of the whole of the

market, and if we had no competitor, we might [!] become monopolists; but it appears to be a contradiction in terms to say that a monopoly exists where are two persons who have the same article which they bring to the market and between whom there is no understanding. In my opinion it is totally impossible a monopoly should exist under such circumstances." [1] It is true there was a point at which increased prices always attracted more competition than usual; but the other coal districts of the country were, as a rule, too backward to take advantage of the high prices. With a highly developed railway system connecting the other coal areas with London, high prices would have the effect of attracting greater quantities for sale, but these conditions were entirely absent at this period; and it is certain that the cartel exercised on the London market as strong a monopoly as it is possible for any combination of capitalists to exercise. An absolute monopoly is generally an object to be aimed at rather than an accomplished fact. Even though there are present all the elements of a complete monopoly it is rarely found practical, or even politic, to exercise it. Many powerful combinations of the present time find it beneficial to keep going one or two weak competitors.

The fact that under certain circumstances competition existed was brought forward by the defenders of the coal cartel to prove that it was not a monopoly—a somewhat thin argument, but used to-day by the supporters of trusts and cartels who point to the number of competitors. ("Monopoly and Competition," Levy, p. 112.)

It was only natural that the spokesmen of the cartel should deny that their organisation had a monopoly; for, according to law, it was a combination in restraint of trade and therefore came under the penal offence of conspiracy. As early as 1793—twenty-one years after the first establishment of the cartel—information was filed in the court against certain coal owners joining the regulation of the Vend, and thereby laying themselves open to the charge of "conspiracy and misdemeanour." But this charge was never proceeded with, and it seems to have died a natural death. There was, however, always the possibility that it would be revived, particularly at a time when opponents

[1] Report, 1823, p. 12.

of the Vend—the coal owners of other parts of the country—were becoming stronger every day. For the defenders of the Vend to admit openly that they had a monopoly would be to invite their opponents to take legal action against them.[1]

While they denied the monopolistic character of their organisation they were compelled, nevertheless, to admit that it was a combination to keep up prices, and before the Select Committee of 1836 it was attempted to justify it on the ground that a combination also existed among the workmen. "It is a combination of the proprietors to keep up the prices of their article, in the same way as a combination among workmen keeps up the price of their product . . . and . . . the proprietors are justified in the one case just as much as the labourers are in the other."[2] The analogy is somewhat confused, for no combination of labourers has ever been able to exercise so much control over the "price of their article" as the northern coal owners exercised over theirs. Moreover, four years later, in 1840, one of the demands of the miners from these very same coal owners was for "liberty to attend delegate meetings without fine." But, according to Dunn—true spokesman of the coal owners—this was a demand of the "most violent persons, who either cannot or will not see the jeopardy in which they are placing the whole cause of the working men."[3] This spirit of the coal owners was, of course, in line with the general attitude of the employers towards the workers in every industry. The miners could advance the "price of their article," if at all, only through the most fierce and violent conflicts, but the owners, with one stroke of the pen, could raise the price of their article almost indiscriminately. When, in 1829, the agreement of the Vend was in abeyance, the price of best coal in London was £1 11*s.* per chaldron, this was the price of free competition. Next year the agreement was renewed, and the price of the same coal rose to £1 14*s.* 6*d.* per

[1] The Report of the Committee of 1836 vaguely hinted at the possibility of taking legislative action against the coal owners. "A question may arise whether the coal proprietors, by thus combining to prevent coals being brought cheaper to market, do not subject themselves to penalties." (Report, 1836, p. viii.). But no action was taken.

[2] *Ibid.*, p. 12.

[3] Dunn: "Coal Trade," p. 227.

chaldron.[1] Nothing could testify more eloquently to the fact that the cartel, within certain bounds, controlled the selling prices on the London market.

From 1799 till 1829 the organisation of the cartel continued without a break, and the suspensions of these years were only temporary. During all this time the Vend had been limited to the collieries of the Tyne and the Wear, and it embraced almost the entire output of these districts. For a long time this coalfield had been practically the only coal-producing area of any importance in the country. But now with the improvement in transport and the application of improved technique to the winning of coals a new competitor was looming on the horizon, and was the cause of great perturbation in the ranks of the coal owners of the cartel, who had come to regard their privileged position as a natural, immutable fact. Towards the year 1832, the collieries of the Tees began to flourish rapidly under the ægis of a new railway which in the last few years had been laid in that district, and which ran through an area rich with coal deposits. The new collieries opened up close to the railway line did not come under the jurisdiction of the cartel, and the competitive struggle which at one time had been waged between Sunderland and Newcastle was begun anew between these two towns and Stockton. The competition of the new "usurpers" on the banks of the Tees was accentuated very much, when in 1832, the cartel agreement was not renewed. Prices fell heavily, as is shown by the following table: [2]

Year	January	February	March	April	May	June	July	August	September	October	November	December
1831	35/–	34/9	27/9	25/4½	29/2	32/6	28/–	27/9	27/9	30/–	29/–	31/6
1833	17/6	17/–	17/6	20/–	15/3	13/–	13/6	13/9	14/4½	16/3	18/4½	17/7½

This tremendous drop was due entirely to the absence of the regulation of the Vend. "Prices were reduced below what many of the collieries could afford to work

[1] Dunn, "Coal Trade," pp. 80–85.
[2] Report, 1836, p. 67.

their coal at . . . and this unnatural competition produced a ruinous depreciation."[1] The fall in prices was certainly very considerable; whether, however, some collieries went under in the struggle for existence is not so certain.

We have learnt from experience in our own day that a cartel always depicts the distress in a time of competition in the rosiest colours so as to justify its own existence. (Levy, *op. cit.*, p. 121.)

But the advantage of a combination was always very clearly revealed at a time of intense competition; and the coal owners soon saw that their interests could best be served by abandoning the struggle of one against the other and renewing the agreement of the Vend. A general meeting of the coal owners was called at Newcastle in 1833, and it was resolved that "the prosperity of the coal trade, and consequently of this district, can only be permanently secured by some equitable arrangement amongst the parties concerned, whereby the supply should be proportioned to the demand at a fair and remunerative price."[2] This agreement was entered into by the owners of the collieries of the Tyne and the Wear, but a few months afterwards the colliery owners of Stockton-on-Tees were for the first time brought under the regulation of the cartel.

The scope of the organisation of the Vend had now greatly extended, and it covered all the really important collieries on the three rivers. The principles of the organisation, however, remained the same as those of the previous agreements from 1771 onwards, while the object of the cartel had certainly not altered. The output was now fixed for each of the three districts in accordance with their respective producing capacities. The Tyne coalfield was still the largest, whilst the Tees, being as yet in its infancy, was the smallest of the three, and their respective proportions of the Vend basis varied accordingly. After the apportionment of the basis to each district the share of each colliery within the district was fixed, and also the prices at which the various qualities of coal should be sold.

[1] Report, 1836, p. 11.
[2] *Ibid.*, p. 6.

In the case of the Tees coalfield these methods adopted under the agreement can be followed quite clearly. For three years the Vend basis for the collieries in this district was fixed as follows : [1]

Year.	Basis in Chaldrons.
1834	150,000
1835	160,000
1836	170,000

The next step was to allot to each colliery within the district a proportional share of the basis. For the year 1836 the Tees collieries were allotted under the distribution of the basis the following proportions : [2]

Colliery.	Allotment (in Chaldrons.)
Auckland St. Helens	26,000
Auckland West	6,000
Butterknowle	16,500
Blackboy	33,000
Cockfield	14,000
Eldon	24,000
Etherley	16,500
Norwood	23,000
Sheldon	13,000
Witton Park	4,000

The basis, as the chairman of the Vend Committee had declared before the committee of 1830, was only an imaginary quantity and was always fixed in thousands. It was the function of the fortnightly meeting of the coal owners to gauge the probable state of the market in relation both to demand and price. When this was done a communication was sent to each colliery owner informing him what proportion of his allotment he was to produce for the next two weeks. There were extreme variations in these " issues." In January, 1827, the issue decided upon by the committee was thirty. This meant that the collieries could produce only 30 per cent. of their total allotment. In October of the same year the state of the trade showed a decided improvement, for the issue was increased to 95 per cent. During this month the Witton Park Colliery, for example, was entitled to produce 3,800 chaldrons, or 95 per cent. of its total allotment.

[1] Report, 1836, p. 105.
[2] *Ibid.*, p. 105.

Occasionally certain collieries would produce in excess of their allotments. Others, again, through a variety of circumstances, would produce less than the quantities allotted to them. These were designated respectively "overs" and "shorts." A good illustration of the working of these methods may be found in the returns of the Tees collieries for 1835 : [1]

Basis.		Issue.		Vend.		Shorts.
160,000	..	121,880	..	114,219	..	7,661

For the whole of the Tees collieries there were no "overs" during this year, although the previous year the excess amounted to 1,833 chaldrons. It was, of course, from the best mines that the "overs" mainly came, for it was not to the advantage of the inferior collieries to exceed their regulated allowance, nor, for that matter, was it always possible.

We have already seen how important it was for the coal owners to control the London market. The state of this market was always the gauge used in fixing the issues for the districts and the individual collieries. It was in accordance with the demand from London that the prices of the various qualities of coal were fixed. It is not surprising, therefore, to find that, contemporaneous with the existence of a combination of coal producers in the North, a combination of coal merchants existed in London. The existence of this "ring" greatly facilitated matters for the northern owners, and it is evident that producers and merchants worked in the closest co-operation.

According to the Report of 1800, the combination of the London merchants seems to have been formed about 1770[2] —a year before the establishment of the Limitation of the Vend. There is, however, evidence of a ring or pool amongst the coal merchants of the city long before that. The leader of the anti-monopolists of the seventeenth century, Ralph Gardner, while he chiefly directed his attacks against the monopolisers of the North, seemed to suggest that there were other culprits outside Newcastle ; and not only in the North were "the faces of the poor ground by these monopolists." [3] "The people," he wrote,

[1] Report, 1800, p. 9.
[2] *Ibid.*, p. 9.
[3] Gardner : "England's Grievances," p. 205.

suffered "under heavy yokes of bondage by monopolies"; and he maintained that "markets were for conveniences not for ingrossing all possessions." [1]

Whether or not, however, a combination of the London coal merchants existed as early as the seventeenth century it is certain that such a combination was formed early in the eighteenth century. Towards the 'forties of this century, the coal trade of London was a very profitable business; moreover, judging by some of the contemporary writings, it was also a very respectable business, despite the opposition to monopolists.

> If a Pawnbroker, by the Overflow of his Gains, has more cash in Hand than he can dispose of, why he gives it vent by trafficking in Coals, and gilds over his own dirty Business with the more reputable title of Coal Merchant.[2]

This seems to imply that considerable capital was required to trade in coal. That there was a combination, or, at any rate, an agreement, amongst the merchants is vouched for by the anonymous author of this pamphlet, for he asserts that "when a Fleet of Ships was expected, Fifteen of the Most considerable of these Upstart Engrossers used to hold a Cabal, in which, having first settled the Market Prices to their own minds, everyone staked a Moidore, by way of Gage, that he would not make a Breach of the combination." [3] This combination was doubtless of the greatest importance to the gild men for maintaining high prices in the London market.

To the later cartel, however, a coal ring in London was of considerably more importance. Wide fluctutations in prices were of great concern to the members of the Vend. A great increase in prices inevitably attracted coal from other parts of the country, and this cut at the roots of the monopoly of the North. As transport facilities improved this danger became ever greater. A big drop in prices, on the other hand, would have resulted in the owners of the best mines seceding from the agreement, and would in all probability have meant the destruction of the cartel. It was always to the advantage of the members of the cartel to maintain as regular a level of prices as possible.

[1] Gardner: "England's Grievances," p. 191.
[2] "A Letter to an Alderman of London," 1747, p. 13. Anon.
[3] "Letter to an Alderman of London," pp. 10–11.

A combination of the London merchants was able to secure this necessary stability far better that it was possible to do so by free competition among the individual coal sellers. Co-operation with the London coal ring therefore was of the greatest advantage to the members of the cartel of the North. By working in conjunction with the London merchants the coal owners could keep up prices at the highest point.

The London coal ring was composed of a small number of people called "factors." These conducted their deliberations at the Coal Exchange, an institution established by an Act of Parliament at the end of the seventeenth century. By a Parliamentary decree all the coal cargoes coming into London had to pass through the hands of these factors. It was therefore an easy matter for them to acquire a complete monopoly of the coal trade in the city.

A law passed in 1831 abolished the Parliamentary prerogatives granted to the factors. Trading in coal on the London market was formally rendered open to all who cared to participate in it. The factors, however, had become too deeply entrenched in their privileged position to be removed by the mere formality of the passing of a law, especially as no steps were taken to render it effective.

It was certainly in the interests of the members of the northern cartel to maintain the existence of the London ring. In the agreement of the cartel of 1833 it was specifically emphasised that "all the parties to the agreement shall strictly adhere to such regulations as to the sale of coal in London by the coal factors."[1] These regulations, drawn up by the central committee of the cartel, laid it down that no member who was a party to the agreement should sell coal in London except through the medium of the factors. This was a strict rule of the cartel, for "only by selling through a factor was the property of the members safe."[2] Requests for coal supplies direct from the colliery owner were met with the reply: "We will not sell you the coal unless you go to a particular agent in London."[3] It was admitted before the Commission of 1836, that it was practically impossible to get supplies of

[1] Report, 1836, p. 8.
[2] *Ibid.*, p. 21.
[3] *Ibid.*, p. 21.

coal in London over which the cartel and the ring did not have some control.

As might be expected, this complete exclusion of all competitors and the monopoly prices that prevailed as a consequence, called forth strong protests from consumers, especially manufacturers who needed considerable quantities of coal. The inhabitants of Middlesex petitioned the House of Commons on the matter, while a person who signed himself "Anti-Monopolist," wrote in a pamphlet: [1]

> The conduct of the coal trade in London was upon a detestable footing, and a system prevailed of the most rotten and fraudulent character. The Coal Exchange was a closed market, and no one could buy upon it but a few privileged individuals who took care to exclude competition. Thus, while the corporation of London, with its revolving zodiac of Lord Mayors, was perpetually denouncing the imaginary conspirators of the North, it nurtured within its own bosom, in the scented purlieus of Billingsgate, as unhallowed a brood of audacious monopolizers as ever flourised under the wings of coruption.

About 1834 there were considerable fluctuations in the prices of coal on the London market. This complicated the work of the cartel, and at the same time prevented the realisation of a regular and sustained rate of profit. The northern coal owners complained to the London Committee of the coal ring, and the latter body were requested "to devise some plan of checking the fluctuations of prices which frequently occur by pressing sales when a larger supply of coal happens to arrive than the actual demand of the day requires." [2] On June 3rd, 1834, a meeting of the coal factors was held to consider this question, and, if possible, to formulate a plan that would meet the desires of the coal owners. After some discussion a scheme was finally adopted which was probably copied from the Corn Law regulations of the time. Both, indeed, were very similar in their operation: the practices used by the landlords to keep up the price of corn were adopted by the alliance of coal owners and coal factors to keep up the price of coal. The supply of coal to be offered for sale each day was determined entirely by the price it would fetch. Cargoes coming into the port of London were registered in

[1] "State of the Coal Trade," pp. 21–22.
[2] Report, 1836, p. 31.

rotation, and offered for sale in the order they arrived. Unless the prices offered reached a certain point the supplies were withheld until buyers showed a more favourable disposition. A scale was drawn up by the factors, and both quantities and prices were determined beforehand. It had been decided that " whenever a greater number than eighty ships reach market on any one day, the factors shall offer them for sale according to rotation of entry, and that not more than forty of such ships shall be offered for sale on one market day, unless the price of best coal be 20*s*. or upwards." [1] The coal owners, however, whilst accepting the principles of the recommendations of the factors, decided that the minimum price should be 21*s*., instead of the 20*s*. recommended by the factors. Accordingly it was upon this basis of 21*s*. that the following scale of prices and quantities was drawn up :

If the price was less than 21*s*., cargoes for sale would be forty.
If the price ranged from 21*s*. 3*d*. to 21*s*. 6*d*., cargoes for sale would be fifty.
If the price ranged from 21*s*. 9*d*. to 22*s*., cargoes for sale would be sixty.
If the price was above 22*s*. 3*d*., cargoes for sale would be seventy.

The factors were very strict in keeping to the regulations ; " and although a fleet of 300 sail should arrive no more than forty ships will be offered on any one day if the prices should be below 21*s*. the previous market." [2] In June, of 1835, prices were very low. There was a plentiful supply of coal, for between 235 and 307 ships came in daily. But the factors adhered to their resolution, and offered for sale only between thirty and fifty cargoes daily. This system " appeared to men of business best calculated to promote the interest of the Trade and of the public at large." The benighted public, however, was unable to see how such practices promoted its interests. The inhabitants of Middlesex, in their petition to the Commons, said that " a few powerful, influential and opulent peers and other individuals . . . are enabled to establish a complete monopoly . . . and are thus enabled to maintain prices, to the detriment of your petitioners and all other persons

[1] Report: 1836: pp. 31–32.
[2] *Ibid.*, xxix.

who daily require this important article of manufacturing and domestic consumption." [1] Another witness before the Committee of 1836 admitted that if there were no combination, "the public would certainly get their coal cheaper." [2] Indeed, it was the admitted aim of the cartel and the ring to keep up prices, and the only consideration that tempered their desire for profits was the competition of other districts when prices rose very high. Enormous profits were made by the owners, though these, in all cases, were defended as "fair" profits. Between costs of production and selling prices there was a very wide margin; improved methods, according to one witness, had been instrumental in reducing the cost of production at one period from 24*s*. to 17*s*. per chaldron. The price of coal on the London market was not lowered correspondingly; hence in the coal industry at that period "there was a higher rate of profit than . . . any other trade ought or does produce." [3] Working costs varied in 1836 from 13*s*. to 23*s*., while the coal produced sold on board ship at 28*s*. per chaldron.

The English consumer had to pay exorbitant prices for coal; indeed, it was from the home market that the coal owners extorted the greatest part of their gains. For it was one of the conditions of the cartel that its regulation did not extend to foreign trade: like many modern combinations, its prices varied in different parts—an anticipation, really, of the zone arrangement of some modern trusts, by means of which the highest prices are those charged nearest the source of production. The owners of the best mines always took advantage of the freedom of foreign trade to escape from the restrictions imposed upon them by the agreement, and considerable quantities of coal were shipped overseas. According to the Report of 1871, "the consequence of this was that frequently coal was sold to foreign markets at 40 per cent. under the prices of the London market. To such an extent was this carried that English coal was sometimes to be purchased in St. Petersburgh at half the price of the same coal on the River Thames." [4]

[1] Petition of the inhabitants of Middlesex to the House of Commons.
[2] Report, 1836, p. 23.
[3] *Ibid.*, p. 173.
[4] Report, 1871, p. 12.

When the coal districts outside the regulation of the Vend were in a very backward state, the coal owners of the North could control prices in London almost at will. But high prices in London were an unfailing inducement to competitors to send their coal to the city. As transport facilities improved, this danger became ever greater, and threatened the monopoly of the cartel.

It was the development of the railway system, however, that finally challenged the very existence of the combination. Technique was improving all round, and was being applied with ever-increasing success to both manufactures and transport. The production of coal increased, and improved transport gave the necessary facilities to convey it to the market. Moreover, the cost of such transport was greatly reduced. The railway revolutionised the whole fabric of the coal industry. For a long time the best situated mines were those located near the coast or on the banks of a river. But with the advent of the railways the position was reversed, and the best mines now were those situated near some public railway. "New adventurers are encouraged to commence operations on account of some proximity to some public railway." [1] New collieries were opened up, and new railway communications brought their coal to the market. Facilities developed for the exploiting of extensive new coal districts. "Since the year 1836 the successive exploration of new coalfields has proceeded with the greatest vigour; the public railways have continued to open more extensively the western districts of the Wear, the Derwent, the Tyne and the Tees." [2] Dunn gives the following table of the increase in the number of collieries in the North alone:

District	1800	1830	1836	1844
Tyne . . .	29	37	47	70
Wear . . .	8	18	9	28
Tees . . .	0	0	16	22
Hartley and Blyth .	4	4	4	6
Total . . .	41	59	76	126

[1] Dunn, p. 213. [2] *Ibid.*, p. 203.

These increases were common over the entire country. There was an "inordinate supply of coal"[1] which resulted in "a great diminution of price."[2] Within a very short period prices fell from 30*s.* 6*d.* to 25*s.* per Newcastle chaldron. From 1836 onwards the amount of coal brought to London from inland sources increased at a tremendous rate. In the early 'thirties this traffic was in its infancy, but the development of the internal railway system of the country gave it a decided impetus. The following table indicates the rate at which it increased :

1836 . . .	2,300 tons.
1840 . . .	22,000 ,,
1844 . . .	72,000 ,,

Coal was brought in now, not only from South Wales, but also from the Midlands and Scotland. "The ramification of railways through the coalfields of the Midland district are also producing a powerful effectual competition. . . . So great has been the competition that the prices obtained have gradually declined for several years, until at length they have arrived at a status below any profit whatever."[3]

The camp of the coal owners was the scene of great consternation as the "usurpers" from outside challenged their supremacy in the London market. At first—and probably rightly so—they ascribed all the evils of the new conditions to the development of railways. Against the progress of the railways in their own districts they started an organised opposition. When the railroad from Stockton to Darlington was first projected the owners petitioned against it ; and when, later on, in 1836, a Bill was brought forward in Parliament for the laying of the South Durham Railway, two great meetings of the coal owners were convened to consider what steps should be taken to cope with this new danger.[4] One of these was held at Newcastle, on April 2nd, and the other in London, on April 16th. The Bill was denounced in the most violent terms at both

[1] Dunn, p. 203.
[2] *Ibid.*
[3] *Ibid.*, pp. 204–229.
[4] Report, 1836, p. xc.

meetings. At the London meeting it was resolved "that in the opinion of this meeting the projected South-West Durham Railway is injurious in principle to the interests of the coal trade." The Newcastle meeting made a more all-embracing charge against these railway Bills, for it was resolved :

> That the Bill which has been brought into Parliament, to enable certain persons to form the South Durham Railway, is not required on the ground of there being any public necessity for such a measure, that it is in direct violation of the acknowledged rights of the landed proprietor, subversive of the long-established customs of the country, and unjust as regards the lessors and lessees of existing collieries.[1]

From such tactics it will be seen that the cartel was manifesting all the symptoms of a dying organisation. Its only hope of continuing its existence was by retarding the technical and economic development of the time ; like so many other social institutions, it aimed at stopping the wheels of history in order to perpetuate its own privileges. But it was all to no purpose, although for a long time it continued its policy of obstruction. The owners adopted every tactic they could to prevent the Bills from going through ; and they even went so far as to engage legal counsel to oppose them "in order to defeat by any means in our power a measure which affected us."[2] The expenses thus incurred were defrayed by voluntarily levying themselves to the extent of 12*s*. 6*d*. per 1,000 of the basis.

In spite of these obstructionist tactics the coal owners failed to impede the development of the railway system ; and there was no alternative open to them but to restrict their own supplies as far as possible. By this method it was hoped to keep up prices at an artificial level. To the extent that competition developed from external sources the policy of restricting output was stringently followed, and the percentage of the basis was progressively reduced. Dunn[3] gives the following figures, which show very clearly this tendency :

[1] Report, 1836, p. 17.
[2] *Ibid.*, p. 29.
[3] "Coal Trade," p. 229.

Year	Actual Vend per cent. upon the Basis.
1837	80
1838	68·1
1839	65·2
1840	55·7
1841	51·4
1842	49·2
1843	44

Dunn adds that this greatly reduced ratio was further threatened by the opening up of twenty new collieries. "Indeed," he says, "the regulation may be said to be in jeopardy." [1]

The cartel certainly was in danger—the greatest danger that had confronted it during the seventy years of its existence. Competition from other districts reduced prices, and in order to meet this competition it was compelled to reduce the output. The individual owners had to reduce their output far below the capacity of their mines, and the effects of this reduction were accentuated now by low prices. This was particularly aggravating to the owners of the best mines. While high prices compensated them for the restriction of their productive capacity it was in their interests to keep within the organisation. But now competition destroyed the possibility of high prices, and the owners of the superior mines strove to overcome this difficulty by an increased output. This brought them into conflict with the owners of the less favourable mines. In the later years of the cartel this conflict within the organisation was very acute. It was in the interests of the owners of the superior mines to get as large an allotment as possible. The owners of the inferior mines, on the other hand, wanted the allotments further curtailed.

This was the greatest crisis in the history of the cartel. There were dissensions within, and there was opposition from without. From dissension to disloyalty was but a short step. Some colliery owners lowered the price of their coal in spite of the regulations which they were supposed to honour. All round there was a perceptible weakening of the discipline hitherto exerted by the central committee, and its decisions were ignored to an increasing

[1] "Coal Trade," p. 203.

extent. The best collieries produced greatly in excess of their agreed allotment, and in the last year of the cartel's existence, there was a vast accumulation of "shorts" and "overs." In 1845 it was discovered that during the previous year the regulations of the committee had been almost a dead letter, as is shown by the following figures of "shorts" and "overs"—the quantities produced below and in excess of the allotment of the committee:

District.	Overs.	Shorts.
Tyne . .	108,680 tons.	216,837 tons.
Wear . .	76,056 ,,	163,946 ,,
Tees . .	15,227 ,,	95,190 ,,

In accordance with the rules of the cartel, those producing "overs" should pay a fine to the committee, which was supposed to hand the proceeds over to those coal owners who had produced less than the regulation allowance. The penalties for the above "overs" amounted to no less than £49,790; and of this total £10,000 was due from three owners, who had produced an enormous quantity in excess of what they were entitled to. This amount was never paid—even when the committee tried to encourage its payment by reducing the grand total to £29,874. Under such circumstances of complete absence of discipline, it was manifest that the cartel could not continue. In 1844 the agreement was not renewed; even the great strike of the miners in that year failed to resuscitate it. On May 13th, 1845, a meeting of the coal owners was held at Newcastle, and the regulation was formally declared at an end. The greatest capitalist combination of the first half of the nineteenth century passed out of existence, after an almost uninterrupted sway of seventy-three years.

CHAPTER IV

AMBITIONS AND ACHIEVEMENTS

THE collapse of the northern Vend in 1844 heralded the advent of the reign of free competition in the coal industry. Immediately after the dissolution of the powerful cartel, which had so effectively controlled the coal trade, a fierce competitive struggle developed. While the Vend was in existence many of the more powerful colliery concerns had been straining at the leash, and had, in fact, in many instances, deliberately ignored the regulations; but with no regulations to hold them in check a fierce "fighting trade" developed. This was a struggle, not only of the northern coal owners amongst themselves, but between colliery proprietors in all parts of the country. Under such circumstances, it was inevitable that prices should fall. Indeed, at one time they fell so low that some of the northern coal owners thought it hardly worth while to transport their coal to the market. Mr. Joseph Pease, the owner of large colliery interests in Durham, stated in the House of Commons that prices in the London market were too low to bear the cost of freightage; and because of this he had given away about 10,000 tons of coal to mend roads!

Even in 1873, almost forty years after the collapse of the cartel, the fighting trade of 1845 was still remembered with consternation; for a witness before the Coal Committee that year said that the break-up of the Vend was "an event which threatened to bring destruction upon all the trade."

With memories still fresh of the high prices maintained by the Vend, it was, perhaps, only natural that attempts should be made, if not to revive the cartel, at least to establish some other form of combination. Before an actual attempt at amalgamation was made, various expedients were suggested to remove the worst effect of the competitive struggle. At one time it was proposed

that no coal should be sold except through the medium of the London market. In this way it was hoped that some control over prices would be possible. This, however, was a scheme that failed to materialise, and some of the coal owners, almost on the verge of desperation, turned their attention to the possibility of an amalgamation. "In 1845, there was a very large and a very intelligent feeling represented by some of the most extensive coal owners in Durham to amalgamate the whole of Durham into one company." [1]

An amalgamation to embrace all the collieries in Durham was attempted in 1845. A number of prospectuses were circulated, and several meetings were called to consider the proposal. Some committees were appointed to estimate the value of the several collieries. The owners of the smaller mines were certainly very keen on the amalgamation, and some owners with very large interests were by no means averse to it. One of these thought that a combination was certainly practicable; and, moreover, "a combination would enable the owners to deal with the purchaser as well as with the workmen." [2] In spite, however, of these manifest advantages, the scheme remained a paper one. Its failure was due, in the main, to the opposition of a few of the larger colliery owners, who refused to co-operate. The Marquis of Londonderry, a "great giant in the county at the time," poured the utmost scorn on the proposal, and definitely refused to ally his interests with it. Others followed his lead and the scheme was dropped.

Between 1844 and 1847 the depression in the coal trade, consequent upon the collapse of the cartel, was greatly intensified. Apart from the fierce price cutting which competition engendered, the great strike of 1844 accentuated matters. It seemed at the time that the only way to deal with both the workers and the consumers was to form a great combination of the northern coal owners. After a slump of almost three years' duration, and of unexampled severity, an attempt was made, in 1847, to amalgamate into one company all the collieries of the North. Some meetings of the coal owners of Northumberland and Durham were called, and a prospectus was issued

[1] Report, 1873, p. 297.
[2] *Ibid.*, p. 296.

in February of 1847. This prospectus began by bewailing the sad state of the trade during the last few years. Many of the coal owners had made no profits, and, through the severity of the competitive struggle, most of them were experiencing heavy losses. Moreover, " if this ruinous system continue much longer, many collieries will be closed, and those which survive would seek to make up their losses by charging exorbitant prices for the limited quantity they would supply to the public." An amalgamation, on the other hand, would put an end to these inconveniences, for " the owners would at once derive a profit, and, by receiving a fair remuneration for their capital, skill and labour, would be enabled to continue their operations and provide a regular and ample supply."

The proposed amalgamation was to be registered as the London, Durham and Northumberland Co., and it was to conduct operations on a scale much grander than anything hitherto known in the annals of the coal trade. It was estimated that its capital would be about £16,000,000—truly a colossal sum for an undertaking in those days. The owners of the amalgamated collieries were to receive in shares of the new company the full value of their properties, in return for which they would hand over their undertakings, and a centralised body would then control and manage the whole. Like its predecessor in Durham, however, the project was dropped. The coal trade had grown too big to be unified even by such an enormous scheme as this ; and now, as a later writer has put it, the scheme is remembered only as " a flagrant violation of the first principles of political economy." [1] If, of course, Jeans had written ten years later he would have had seriously to revise his opinions as to the inviolability of the doctrines of the classical economists.

After the failure of the Durham and Northumberland project, many other proposals were put forward to regulate the price of coal. Almost without exception, however, these schemes came to nothing. The era of competition had definitely arrived in the coal industry. Conditions in the industry had changed considerably since the time of the Vend. The coal trade was no longer confined to one corner of the country, but was distributed over various parts of England, Scotland and Wales. A combination

[1] J. St. Jeans : " Trusts, Pools and Corners," p. 56 (1894).

established in one of these districts would have no monopoly, for it would still have to compete with other districts. The owners of the more prosperous mines foresaw this, and that was the reason why many of them refused to countenance any proposal for an amalgamation.

It was manifest that a combination of the owners to regulate output and prices was impracticable, though there were many leading coal owners who thought otherwise. Any scheme of amalgamation had to contend with the conflicting interests of the large number of owners, and most of the proposed expedients to regulate the trade failed to overcome this obstacle. These conflicting interests were too complex and too deeply rooted to be harmonised by any artificial scheme.

In spite, however, of the conflicting interest of the owners there were certain common interests which brought them together. Especially were they on common ground on questions affecting the conditions of their employees. From this opposition of labour and capital in the coal industry arose, in 1854, the first national association of the coal owners: the Mining Association of Great Britain.

In the various districts, too, the struggle of labour and capital became at times very severe, and impressed upon both sides the necessity and advantage of combination. Invariably, of course, this lesson was first learned by the owners. In South Wales, in the early 'sixties, opposition to labour brought the owners together for the first time.

> The steam coal collieries found great difficulty in keeping peace with their workmen, and in order to strengthen themselves as regards labour . . . they combined to form the Aberdare Steam Coal Collieries Association (1864). This was the first attempt at joint action between the coal owners of South Wales. (Carter: "Tendency towards Industrial Combination, p. 290.)

At first this association did not embrace all the colliery proprietors of South Wales: it did not include the firms producing coal for their own ironworks, but only those producing coal for sale. It was not long, however, before all the chief coal owners came in; and in 1873 was formed the Coal Owners' Association of South Wales and Monmouthshire.

These associations, both national and district, have never functioned in the direction of either regulating

output or fixing prices ; and one of the chief binding ties of the associations has always been precisely that force which brought them into existence—the antagonism of labour and capital. The special significance of these associations in the affairs of the industry will be considered later.

From the middle of the nineteenth century onwards, scheme after scheme was put forward to regulate the coal trade. The South Wales coalfield was for some time regarded as a favourable place to put these schemes into practice. It was thought that, through its favourable geographical location and the quality of its coal, it would be an ideal district to establish a combination. When the coal trade was undergoing a period of acute depression the number of these schemes was multiplied, and in almost every period of fluctuating prices some scheme of amalgamation was launched.

> Fluctuations in prices, rapid and great, are the primary evil, and the worst effect of that evil influence is that it tends to produce numerous disputes between masters and workmen. (Vincent : "Life of John Nixon," pp. 231–232.)

In the 'fifties and 'sixties of the last century the South Wales colliery owners were considerably perturbed about the violent price changes then taking place. To cope with the difficulties occasioned by these fluctuations John Nixon, a leading South Wales colliery owner, made more than one attempt to form some kind of organisation that would secure stability for the trade. " For the difficulties and quarrels which ensued, Mr. Nixon, with other coal owners, sought a remedy, and the first remedy suggested was that which is now boasted as novel, but is really as old as trade itself, the regulation or the restriction of the Vend or output of each colliery." [1] Nixon, the leading figure in the movement, and a few of his fellow coal owners, sought to establish an association to restrict output. This, it was thought, would enable a steady level of prices to be maintained, and the supply at all times to be adjusted to the demand. Meetings were called, and the proposal was discussed from every angle. Some of the coal owners were very anxious to form an association. " Nixon and other

[1] Vincent : "Life of John Nixon," p. 232.

colliery proprietors fought, and fought hard, to establish control of output, or vend." [1]

At one time the project seemed to be on the verge of fruition. An independent mining engineer was delegated to inquire into the affairs and prospects of the various collieries with the object of deciding upon the quota to be allotted to each colliery. When, however, the engineer's report was presented to a meeting of the coal owners, the project came to a very abrupt conclusion. "Such dissension was created among them that the scheme was abandoned, and each one allowed to 'gang his own gait' and sell his coal as best he might." [2] The Nixon scheme went the way of its many predecessors, and the trade remained unregulated. Competition was still the leading principle in the coal trade; for while schemes of amalgamation had a "superficial fascination . . . they were founded upon a disregard of human instincts . . . for the rules of political economy are natural and irresistible, not human and alterable." [3]

Undeterred, however, by the eternal and unchanging character of the "first rule of political economy"—competition—Nixon and his colleagues made another attempt to control the trade. After the failure of the output-fixing scheme, an association was formed for the purpose of fixing a minimum price for coal. Nixon was chairman of this association, but its success was no greater than that of its predecessor. It naturally encountered all the difficulties which fall to the lot of such a loosely knit combination as a price-fixing association, "that is to say, the mean man breaks away, and leaves his comrades out in the cold." [4] In the very infancy of Nixon's association, an ex-flour merchant, who had come into the coal trade, broke the regulations by fixing prices below the figure decided upon by the association. This was the end of the venture. "It is consoling to learn," adds Vincent, "that long experience taught Mr. Nixon, almost worthy to be called the father of the export of coal, the chimerical nature of schemes of this kind."

A few years ago, a great deal was heard of the miners'

[1] Vincent: "Life of John Nixon," p. 234.
[2] *Ibid.*, p. 235.
[3] *Ibid.*, p. 231.
[4] *Ibid.*, p. 235.

proposal to establish a " national pool " for the entire coal mining industry of the country. That proposal was by no means new in the history of the industry—although it was original in that it came from the miners' side. More than one scheme has emanated from the owners' side to establish a " coal pool " to embrace all the collieries of the country. One of these proposals was made in 1888. A writer in *The Times* that year suggested the formation of a colossal trust to control the entire coal output of the country. It was realised that certain difficulties would have to be overcome before the scheme could become a reality. One of these difficulties was the provision of the necessary capital to operate on so large a scale, the other, the obtaining of the necessary unity amongst the coal owners. These difficulties proved to be insuperable, and the proposal never went beyond the realms of a newspaper discussion.

Of all the schemes advanced for the amalgamation of the mining industry, perhaps the most ambitious was that proposed in 1893 by Sir George Elliot. Elliot was one of the most important colliery owners in the country, and his interests, even in 1893, were not confined to one coalfield. He owned collieries in Durham, and had colliery connections both in Northumberland and in South Wales. The idea of unifying all the collieries of the country in one company had fascinated him for a long time. Before the committee of 1873 he deplored the disappearance of the Vend, and more so the failure of some of the subsequent schemes. He felt convinced that, despite the failures of the past, an amalgamation of all coal mining interests was quite practicable. Difficulties there were, he admitted ; but they were difficulties that could be overcome if the proper methods were adopted ; and the advantages of a combination would more than outweigh any trouble taken to remove them. On the eve of the Elliot proposal, Jeans wrote :

> There are over 3,500 collieries in the United Kingdom, and as many of them are in the possession of limited liability companies with large boards of directors, it is likely that, in some cases at least, it would be found impossible to get the consent of all the members of such boards to join the suggested combination . . . and there can be no doubt that all the railway companies . . . the steam shipping companies . . . the principal industries of the country . . . would be likely to offer every opposition in their power to such an enterprise. It would

be the coal industry *versus* the world. Is the coal industry strong enough to sustain such a struggle? ("Trusts, Pools and Corners," p. 66.)

The difficulties were certainly great; although Elliot did not view them in the same light as Jeans. Moreover, the evils from which the trade was suffering were of such magnitude as to warrant, in Elliot's opinion, some drastic change in the entire organisation of the industry. In 1893 the coal industry was going through a particularly acute period of depression. Prices were being cut all round, and in order to recoup themselves the owners had made severe reductions in the men's wages. This led to the prolonged strike of 1893. In many parts of the country there were violent conflicts between the miners and the military; and it was at this time that the notorious Featherstone incident occurred.

It was in the midst of all these disturbances that the Elliot scheme was first brought before the public in a lengthy article in *The Times*, of September 20th, 1893. The title of the article, "A Projected Coal Trust," indicated the nature of the scheme. The yearly output of coal in Britain at the time was 182,000,000 tons. Part of this, however, was raised by the iron masters directly for their own works. Elliot made an allowance of 20 per cent. for this quantity, leaving 145,000,000 tons to be regulated by the proposed trust. At a selling price of 7*s*. 3*d*. per ton, it was estimated that the total profits of the whole industry would be £11,375,000. An undertaking of such magnitude would naturally require an enormous amount of capital, estimated by Elliot at slightly under £110,000,000. This sum, although considerable, was "not unmanageable." To provide this necessary capital, one-third of the stock of the new company was to be issued in 5 per cent. debentures and two-thirds in ordinary shares.

A coal trust on this scale would, it was contended, be able to effect some far-reaching economies in the working of the collieries and the distribution of the coal. The large barriers of coal left between independent collieries would be worked under a scheme of amalgamation, and it was held that the saving by this means alone would add 10 per cent. to the coal output of the country. Other economies were to be effected in pumping and ventilation, and by a more scientific method of working generally. Through these

economies the national coal trust would, it was contended, be able to pay a minimum of 10 per cent. on ordinary stock, after the payment of debentures, interest, and the setting aside of a reserve fund for developments. A maximum rate of 15 per cent. was to be fixed for ordinary shares, and no dividend was to be paid above this figure without the approval of the Board of Trade. If the profits of the trust were sufficient to warrant a higher rate, the miners, the consumers and the owners were to be allotted equal shares of the excess.

For administrative purposes a central representative council was to be established, and this would be the governing body of the national corporation. The districts were to be represented on this council on the basis of a given output, and a suggested basis of representation was one member for every 5,000,000 tons. On this basis the central committee would be composed of nine members, representing the various colliery districts of England, Wales and Scotland. A committee was to be established for each district; and these committees were to be responsible for working the scheme locally. They were vested with the task of regulating wages; and Elliot suggested that the wages in the various districts should conform as much as possible to a general national standard. This principle, in conjunction with the profit-sharing proviso, would, it was thought, be the means of introducing into the coal industry better relations between owners and workmen. A further step to this end was the proposal to remunerate labour " on a liberal basis as compared with other classes of labour."

The theoretical working out of the details of the scheme was a comparatively easy matter. Its practical application, on the other hand, immediately brought it up against some very serious obstacles. A big difficulty was, as Jeans had pointed out, the large number of mines in different ownership. This, however, was by no means insuperable. A still bigger difficulty was that of making the scheme elastic enough to take into consideration the peculiar local circumstances. Even these, diverse as they were, could doubtless be met. But the greatest obstacle of all—the obstacle on which the scheme was finally wrecked—was the valuation of the colliery concerns in a way that would give satisfaction all round. The inaugurators of the

scheme had foreseen this difficulty, and they had tried to overcome it by placing the problem of valuation in the hands of experts. The colliery owners themselves were to nominate these experts, and the final selection was to be in the hands of the central committee. All possible information was to be placed before the experts in order that "an equitable appraisement of values would be arrived at." As a guide for the experts' commission it was suggested that a basis of 15*s*. per ton for ordinary coal should be taken as a standard. Some collieries, of course, were worth more; others, again, were worth less. The final appraisement would take into consideration these variations. It was maintained, however, that the precise figure was relatively unimportant to the scheme, as it could at all times be adjusted to meet individual cases.

Sir George Elliot and his supporters were certainly in earnest about the scheme. Over 2,000 circulars were distributed to the colliery owners in all parts of the country. The response, however, was not encouraging, and the project was dropped. The "delicate and knotty point of the appraisement of the values of the existing properties"—a difficulty which, to some extent, the promoters seemed to fear—proved too big an obstacle to be overcome.

The evils to which the coal industry was subject continued unabated; and when, after a period, the depression passed away, the coal owners in some districts began to consider ways and means of preventing a recurrence of the "coal war." "We do think," said the *Colliery Guardian*, of January 19th, 1894, "that something should, if possible, be done to prevent contract prices being ruinous. The contract prices which some of the steamship, railway and gas companies require before they will do business with colliery proprietors are little short of disgraceful. . . . We are glad, therefore, to know that the employers in the coal trade are using their organisation for the purpose of getting better prices for their coal from large consuming bodies." The owners were complaining that the operation of the laws of supply and demand was harmful to the prosperity of the industry, causing disturbances not only in the relation of costs to prices, but also in the relation of employers and employees. "Colliery owners allege that prices are governed by demand and supply, and that prices ought to govern wages; the miners allege that the colliery

owners can control prices, and that in any case wages ought to govern prices." [1]

A new movement was started to form associations for the purpose of regulating prices; for the owners were convinced that the coal trade would never be prosperous while these disturbances were allowed to continue. "A fall in price," said a writer in the *Economic Journal*, "can only be avoided by a restriction of supply." With this end in view, the South-West Lancashire coal owners held a meeting in November, 1893, when it was proposed that prices should be regulated. There was, however, "rather a want of unanimity at the meeting which prevented any real fixed basis of prices being definitely accepted." [2] Some formal arrangement, however, was arrived at, the prices fixed varying from 6*s*. to 15*s*. per ton for different qualities of coal. This meant an advance of about 2*s*. per ton on house coal, while ordinary fuel prices remained about the same.

Shortly after, steps were taken to form an association of the coal owners of Lancashire and Cheshire. "An influential committee was appointed to draft a scheme. . . . By means of this association it is thought some effective check may be put upon the excessive competition for contracts, as it is proposed that, before tenders are sent out, all important contracts shall be submitted for consideration to this association." [3] This association, from the outset, displayed a striking lack of unanimity; and at the root of the difficulty was the problem of superior and inferior mines. Under no circumstances could the owners of the better collieries be persuaded to act entirely in conjunction with the owners of the poorer mines. "It was distinctly intimated by the representatives of some of the leading collieries that there was no intention whatever that this association should attempt, in any way, to exercise coercion in the matter of prices; its object was to be mainly to protect the coal owners generally from unfair prices." [4]

All the collieries of the two counties did not join the association, and this naturally limited its power very

[1] *Economic Journal*, 1894, p. 15.
[2] *Colliery Guardian*, 1893, p. 966.
[3] *Ibid.*, 1893, p. 1014.
[4] *Ibid.*, p. 1062.

considerably. In a very short period there were complaints that, while the associated collieries adhered to the official price list, collieries outside the association were cutting prices. Moreover, the maintenance of the association price attracted competition from other districts. "The result is that the associated collieries have in many cases to see no inconsiderable portion of their trade taken out of their hands."[1] As demand slackened with the coming of summer weather, the troubles of the association increased. Gradually the members were tempted to lower their prices to attract as big a demand as possible. Once this practice was started it meant the dissolution of the association. At a meeting held in September, 1894, several of the leading colliery owners "intimated that, owing to underselling on the part of some of the members, they should withdraw from the association."[2] Under such circumstances it was thought useless to continue the association. Once more competition asserted itself, and "the colliery proprietors throughout the district were free to act as regards prices."[3]

Early in 1894 there was formed the Durham Coal Sales Association, comprising, according to the official statement, colliery owners representatives of 80 per cent. of the total output of Durham. One reason adduced for the formation of this organisation was the belief of the colliery owners of Durham that "similar steps are in contemplation in other districts." The main purpose of the association was the regulation of prices. For some time the owners had been considering "whether some judicious organisation could not be adopted to diminish the evils which are commonly supposed to arise from unrestricted and unorganised competition, of which, perhaps, the most important are the great variations in prices to which the trade is now subject."

The chief promoters of this association realised that its greatest internal weakness was the possibility of underselling. A minimum price was fixed for various qualities of coal, and a penalty of 2*s*. per ton was to be imposed on any member selling below the regulation price. In times of steady demand the association was comparatively

[1] *Colliery Guardian*, 1894, p. 1030.
[2] *Ibid.*, September 7th, 1894.
[3] *Ibid.*

successful; but when, in 1895, a lean period descended upon the coal trade, it was found to have a most insecure foundation. Pit head prices that year fell by 7*d.* per ton, and export prices had to be reduced from 10*s.* 5*d.* to 9*s.* 2½*d.* per ton. The approach of summer accentuated the drop. To attempt to maintain high prices in one area would inevitably result in attracting competition from outside districts. Under such circumstances the collapse of the organisation, in 1895, was inevitable.

In 1896 a scheme was put forward to control and regulate the steam coal of South Wales by one powerful company. The originator of the idea was Mr. D. A. Thomas—later Viscount Rhondda—who, in that year, wrote a pamphlet [1] advocating the formation of such a combination. There were already in South Wales some large concerns producing an enormous output. This concentration was to provide the basis for the combination. "If," said the writer of the pamphlet, "it were possible to get the twenty companies or collieries constituting 80 per cent. of the output to combine, the combination would, in my judgment, be sufficiently powerful to control and regulate the steam coal trade of South Wales and Monmouthshire."

The essence of Lord Rhondda's scheme was the regulation of output in accordance with the demand for coal. The colliery proprietors entering the combination were to "agree for some fixed period that each undertaking is entitled to produce, month by month, an agreed percentage of the total production of the month, whatever it may be."[2] Any party to the agreement producing more than the regulated allowance was to be fined so much per ton produced in excess; and the proceeds of these fines were to be devoted to indemnifying those owners who produced less than their percentage of the quota.[3] Here was the old problem of the "shorts" and "overs" which had been the bane of the regulation of the north of England Vend; and the methods adopted to meet the difficulty were in both cases the same.

Under the new scheme no attempt was to be made to fix prices and profits; these matters were to be left to the coal owners, independently of the agreement. The only

[1] "Some Notes on the Present State of the Coal Trade" (Cardiff, 1896).
[2] Vyrnwy Morgan: "Life of Viscount Rhondda," p. 167.
[3] *Ibid.*, p. 160.

concern of the combination was to get the best possible prices by eliminating the cut-throat competition which, it was alleged, caused many collieries to be worked at a loss. The amount of coal to be produced would be determined largely by the demand ; and the purpose of the combination was to apportion to the various collieries a certain percentage of the total. These allotted quantities would vary from time to time in accordance with the circumstances of the trade.

It was inevitable that there should be considerable difficulties in apportioning the output in such a way as to satisfy all the coal owners. The proposer of the scheme realised this, and he was astute enough to understand that it would be upon this fact the scheme would succeed or fail. To prove that it was not an insuperable difficulty he cited the practice of the northern cartel earlier in the century. "If the matter is approached in a conciliatory spirit," he wrote, "it will be readily overcome." He suggested that, as a general principle, each colliery should be allowed to select as its basis any period of six consecutive months during the two years before the adoption of the scheme. A committee representative of the whole of the members would deal with special circumstances ; and, in any case, the scheme was capable of modification to meet special needs as they arose from time to time.

One important modification was suggested to meet foreign competition. Lord Rhondda quoted the instance of the old Vend, under which coal was sold in foreign markets at a price sometimes 40 per cent. below the price charged to the home consumer ; while the Westphalian Coal Syndicate was mentioned as adopting the same tactics. Some such method would, it was urged, be desirable for the new scheme. "If it were found that American coal was ousting us from the Baltic and that our shipments to those markets were falling away, it would not be difficult to exclude shipments to those markets from the quantums of any colliery so shipping, or to reckon them at a half or some other fraction of the quantity so shipped."

There were many other complications which Lord Rhondda could foresee; but he appealed for a year's trial for the proposal. After that he was prepared to leave it to the coal owners to decide whether or not it should be continued. He was quite convinced of its practicability,

and he addressed numerous gatherings, both of miners and of coal owners, at which he urged its adoption.

When the scheme was first promulgated Lord Rhondda was not a member of the Coal Owners' Association, but before it could become a workable proposition it would have to be adopted by a majority of that body. The association, then under the leadership of Lord Merthyr, drafted a scheme which was a copy of the original Rhondda draft. According to Lord Rhondda, 80 per cent. of the coal owners had signified their willingness to enter the compact to give the scheme a trial; from 85 to 90 per cent. would, he said, be enough to ensure its success. Lord Merthyr, however, speaking on behalf of the associated coal owners, insisted on a minimum of 95 per cent. of the owners becoming parties to the agreement. Whether this was a deliberate effort to strangle the proposal it is impossible to say. In any case, the 95 per cent. was not forthcoming, and the scheme was, at least for a time, abandoned.

This was the last great combination put forward in the nineteenth century, and it met with no better success than its many predecessors. Every scheme put forward was proclaimed as the panacea for the evils of the coal trade; yet every one collapsed. In almost every case the evils they set out to cure proved too much for the promoters. The greatest experts in the coal trade devoted much time and attention to these matters, but in hardly a single instance were they successful.

To the very end of the nineteenth century the British coal industry was not ready for any rapid development of combination, and when the necessary circumstances for their development were absent the most perfectly conceived schemes were bound to fail. Paper programmes are never at any time satisfactory substitutes for the necessary external conditions, and no plan could be devised to unify the coal industry when the operation of economic and geographic factors dictated otherwise.

The failure of these schemes in the nineteenth century was hardly a deterrent to the promotion of similar attempts in the twentieth century. South Wales once more attracted the attention of the syndicate promoters. In 1903 an attempt was made to establish a combination in the anthracite coal district, but this, too, was wrecked by the difficulty of valuation. Two years later the idea of an

anthracite coal trust was revived. Between the two attempts there had been a period of acute depression in the industry, and it was thought that this would facilitate the venture. A considerable number of firms were invited to enter the proposed amalgamation. Most of these firms, apparently, had no objection to the project, but the prices they demanded for their properties were excessive. The difficulty of valuation once more shattered the project; for, according to the experts appointed by the syndicate, "an amalgamation carried out on the basis of these prices would be over-capitalised and its prospects of successful working severely handicapped." In 1911, the question of an anthracite combination was again put forward; a meeting of the coal owners of the district was held to consider a proposal for "concerted action in controlling the production of anthracite coal." No agreement, however, was arrived at, and the proposal fell through.

Failure after failure characterised the attempts at amalgamation in the coal industry of Britain, from the dissolution of the northern cartel in 1844 to the end of the century. Some temporary successes there are to record, it is true; but invariably failure soon followed. At the end of the century the coal industry was almost entirely immune from any big capitalist combination. In a list [1] of forty-three of the principal amalgamations in Britain up to 1901, there is not one combination of coal producers. The inherent circumstances of the industry had been instrumental in wrecking numerous schemes of amalgamation, both local and national. Throughout the second half of the nineteenth century the coal industry was one of the most competitive spheres in Britain's most competitive age.

[1] Carter: "Tendency Towards Industrial Combination," p. 25.

CHAPTER V

COMPETITION AND COMBINATION IN THE COAL INDUSTRY

The coal mining industry differs in many vital respects from almost every other industry. With the exception, perhaps, of agriculture, there is no industry more dependent on natural conditions. These conditions play an enormously important part in the economics of the industry. In any manufacturing concern almost all the processes are completely under man's control, from the first fashioning of the raw material to its finished state as a saleable commodity. Such is not the case in the coal industry. Here, man's activity is conditioned to a very great extent by objective factors to which he must adapt himself. The state of the roof, the condition of the seams, the proximity of water—all these and many other factors influence the structure and operations of the industry, and inevitably affect both its technique and its economic organisation.

Continental students of the economics of the British coal industry have always found the greatest difficulty in accounting for the absence of any great single trust controlling the coal output of Britain. In Germany they had before their eyes the example of the Rhine-Westphalian Syndicate, which, on the eve of the war, controlled almost the entire coal output of the Ruhr and over half of the whole output of Germany. No such trust existed in Britain; and some writers, including Professor Liefmann, who wrote in 1903, have sought to explain the difference between the two countries in terms of national psychology. This explanation was prompted, no doubt, by the repeated failures of schemes of amalgamation in the coal industry since the 'forties of last century, and it was put forward before the modern combination movement really began.

The history of the coal trade, however, proves conclu-

sively that the psychological explanation will not account for the existence or absence of a coal trust in this country. It has already been seen that combinations in coal date almost from the time when the industry first acquired a capitalistic character; while during the most competitive era of British industry the northern cartel held its own in spite of all the logic of the Free Trade economists. The modern combination movement, too, shows sufficiently clearly that the British coal owners have no inherent aversion to the formation of combines.

The explanation of the comparatively late development of the modern combination movement in the coal industry of this country is to be found in the circumstances of the industry itself. These circumstances are partly geological and geographical, and partly economic in character. To such an extent do they influence the organisation of capital in the industry that they account, in the main, for the difference, both in degree and in time, in the development of the combination tendency in Britain and in Germany.

When, in 1893, the great national trust scheme of Sir George Elliot failed, the Rhine-Westphalian Coal Syndicate had already almost complete control of the coal industry of the Ruhr. How such an enormous combination could succeed in Germany when so many less ambitious projects had failed in England has been "a source of considerable wonder to those acquainted with the 'fighting trade' prevailing throughout the English coalfields, and the inglorious career of combination schemes therein since the dissolution of the Newcastle Vend in 1844." [1]

A superficial comparison of the organisation of the industry in the two countries might lead to the conclusion that the differences between them are to be explained in terms of national psychology. The combination tendency in Britain, however, has encountered many obstacles which have not been met in Germany, and these to a considerable extent have retarded the successful establishment of both local and national combinations. In England and Germany—indeed, in every capitalist country—the same causes give rise to the need for combination; but the progress of the movement is not uniform everywhere; for many circumstances influence in different ways the extent and the intensity of its development.

[1] *Economic Journal*, 1912, p. 138.

Obstacles to Amalgamation in the Coal Industry

In Germany the coalfield over which the great Westphalian Syndicate holds sway is concentrated in one compact area. This greatly facilitated the establishment of a combination of all the colliery owners within that area. Previous to the amalgamation the several colliery firms were continuously involved in fierce competitive struggles amongst themselves; but the concentration of the collieries in one geographical area provided the necessary opportunities for the owners to come together to discuss ways and means of eliminating this competition. Without this geographical concentration the difficulties of forming the syndicate would have been greatly magnified, even if, indeed, its establishment would have been possible.

The coal industry of Britain shows no such compactness. Here the coal is deposited in areas which are separated by very wide geographical boundaries. Altogether there are about twenty-six well-defined coal-producing districts, and while it is true that the development of transport tends to minimise the effects of this geographical separation, local segregation of the districts retarded for a long time the process of capitalist combination. The influence of this factor on the organisation of capital in the coal industry may be seen more clearly by a reference to the conditions in the American coalfield. The anthracite coalfield of Pennsylvania is highly concentrated geographically: this offered a splendid opportunity for a monopolistic control of the coal supplies of this area by a powerful combination, and such a combine was, in fact, established quite early in the history of the coalfield. The bituminous coalfield, on the other hand, is spread over twenty-seven States. Under such circumstances it is not easy to establish a combination to control the production of a coalfield so widely dispersed. Geographical concentration has the effect of facilitating the progress of capitalist combination, while geographic separation, which is so evident in the British coal industry, for a long time had precisely the opposite effect.

Another big obstacle encountered by the combination movement in the coal industry is the difficulty of valuation. This is met with, to some extent, in almost every industry,

but it is more pronounced in the coal industry than in any other. A coal mine, unlike an ordinary establishment, cannot " place its wares in the window." It is at all times difficult to decide the value of a colliery; for, owing to possible geological disturbances, a flourishing and profitable concern may encounter many difficulties which would reduce its profit-making potentialities. In actual fact, it is true, such a contingency hardly ever arises; but, theoretically at least, the possibility is ever present in the mind of the capitalist; and, consequently, the question of valuation figures conspicuously in the negotiations of every amalgamation in the coal industry. There is, further, the difficulty of deciding on the basis of valuation. In this connection three possible alternatives present themselves: first, the prospects which a colliery has of future supplies; secondly, the capital invested; and, thirdly, the profits made in the past. A cartel can, to some extent, overcome these difficulties; but in any process of amalgamation or the formation of a coal trust, on whatever scale, they are, as Sir George Elliot discovered, the most " knotty points " in the transaction.

The existence in the coal industry of mines of different degrees of productivity has always been an obstacle to amalgamation, and it is rarely possible to remove such differences by more improved management, or, in many cases, even by improved technique. From these differences in productivity there follow differences in profits. A rich and well-favoured mine may be realising enormous profits, while a mine poorly endowed with natural resources and facilities for working may find it difficult to make any profit at all. There is, therefore, no inducement for the owners of prosperous collieries to amalgamate with the poorer concerns.

Wherein lies the advantage, from a business point of view, in amalgamating a new, easily-worked mine with thick seams and an enormous scope for development with an old, deep, difficult pit in which the seams are thin and nearly exhausted?" (*Iron and Coal Trades Review*, February 1st, 1924.)

These difficulties in productivity are found not only between the various districts: they are invariably found in the same district, often, indeed, between adjoining collieries. This fact goes far to explain the absence of an

all-embracing combination even in one locality. A big capitalist combine will rarely buy up the small, poorer collieries; for, in the first place, it would be an unremunerative investment; and, secondly, the poorer mines can never become serious competitors.

The successful establishment of a trust on a large scale needs a certain uniformity of conditions for the concerns involved. In the mining industry this necessary uniformity is singularly lacking. Conditions in the mines sometimes change with extreme rapidity. In addition to natural differences in productivity, some collieries enjoy special marketing advantages, or may be favourably situated for transport facilities. Even if these local differences could be overcome, further difficulties arise.

Although, as a rule, each district has its own special markets, a combination or agreement in one district is always faced with the possibility of competition from other districts should prices be raised. More than one district price-fixing association has been disbanded because of this.

Most of the obstacles which have stood in the way of the development of capitalist combination in the coal industry can, in the last analysis, be traced back to these basic factors. If these alone had operated, there would never have been any combines in the industry. There are, however, certain counteracting forces which favour combination, and these account for the development of this type of organisation during recent years.

Favours to Industrial Combination

The first force making for local or national unification of the industry is the development of transport. While this delivered the final blow to the northern Vend in 1844, it is, nevertheless, the starting point of the modern combination movement. Without a highly developed transport system a modern capitalist combine with its wide and extending interests could never function. An efficient transport service goes a long way towards breaking down the barrier of geographic segregation which has always been a most formidable obstacle to the progress of capitalist amalgamations. With a transport system that links together all parts of the country, it is possible

not only to form local and district associations, but to unify the industry on a national basis.

The development of railways destroys the monopoly of a given market by one district. This generally leads to intense competition, and the only way the coal owners can save themselves from the rigours of the price cutting which ensues is by some form of agreement. Throughout the history of the coal trade fierce competition for markets has always given rise to attempts at combination, and it is under such circumstances that more than one combination has been started.

Another stimulus to the aggregation of colliery interests is found in the present capitalist method of working the coal. The immense waste of resources caused by working different collieries under separate control has been the theme of many a book in recent years. It was this waste that prompted, in the main, the famous verdict of Mr. Justice Sankey at the Coal Commission of 1919. When collieries are under different managements large barriers of coal are left unworked. Apart from wastage from a national point of view, this represents a sheer economic loss. One of the advantages put forward in support of the Elliot national trust scheme was that national unification would enable the available supplies of coal to be increased by 10 per cent.

There is no need to emphasise, of course, that no capitalist combination is formed to save this coal for the nation. Capital is not in business for the sake of the nation; its object is, not the conservation of national resources, but the accumulation of profits. Where the grouping of collieries has been prompted by the wastage inseparable from lack of co-ordination, the latter and not the former has been the object in view.

It occasionally does happen that only by some form of unification of interests can a rich and profitable seam be fully exploited. When this is the case an amalgamation of interests is a very profitable business. It was this desire to work a profitable boundary that started the expansion of the Cambrian Combine in South Wales. The coal between the Cambrian Co.'s property and that of an adjoining company could be exploited only through some scheme of unification. Lord Rhondda therefore opened negotiations on behalf of the Cambrian Co. to secure the

property of the Glamorgan Coal Co. "Possession of the property of the Glamorgan Coal Co. immediately suggested itself to him . . . as a solution of the problem of working most economically a particular section of the Cambrian Co.'s taking." [1]

A further favour to amalgamations is the importance of foreign trade to the coal industry. An enormous amount of the coal output of Britain is exported overseas, to markets located in almost every part of the globe. The profitable disposal of coal in these markets involves the establishment of international selling agencies, with an elaborate sales organisation employing large numbers of agents, clerks and officials. These activities were formerly in the hands of middlemen who naturally "skimmed the cream off the milk."

> The complete separation between the commercial (marketing) and industrial (coal getting) sides . . . represented an organisation wasteful in itself, and one that put too great a power over prices in the hands of the speculative middleman. ("Viscount Rhondda," p. 101.)

Small concerns have no alternative but to submit to the rule of the merchant who buys cheaply and sells dearly. The capital outlay needed for the establishment of these foreign sales agencies is too big for the small, independent undertaking. But the combination can overcome these difficulties. "Most of the large colliery companies now do their own selling through salaried salesmen stationed at the different markets, who sell either to the shippers or direct to the foreign consumer. Others have acquired an interest in shipping firms; and the production and export of the coal is now centralised under one control." [2]

Only the big concerns can organise their own selling agencies. In recent years most of the big amalgamations have entered the export trade, with a view to limiting the power of the merchant and thus regularising prices for themselves. As a rule, the coal owners acquire a controlling interest in some coal-distributing business. Thus, for example, Guest, Keen & Nettlefolds, Ltd., secured control over the firm of L. Gueret & Co., one of the biggest shipping firms in South Wales. In the same way, too, Lord Rhondda

[1] Morgan: *op. cit.*, p. 127.
[2] Jevons: "British Coal Trade," p. 303.

extended his power as an industrial magnate by securing a controlling interest in those firms which were responsible for the sale of coal from his own collieries.

The bigger colliery companies thus extend their interests and activities to embrace both production and distribution; and the dependence of the coal industry on the world market is an important stimulus to the development of combination amongst them. When Guest, Keen & Nettlefolds entered the coal industry the exigencies of the world market soon prompted them to widen their sphere of action. In addition to their interest in Gueret & Co., "they hold a very large interest in the Société Générale de Houilles et Agglomeres, one of the largest patent fuel-making and coal-distributing companies in France, a similarly large interest in La Societa Brittannico, Guerets, having depôts at Genoa and Naples and doing a large coal-distributing business."[1] Thus, in order to cope with the requirements of the world market, the colliery companies tend to consolidate their interests in large concerns. With the elimination of the middleman, too, more profits are available; and these extra profits can be used for extension in other directions.

In the coal industry, as indeed in every other industry, large scale operations make possible far-reaching economies which are entirely absent from small scale production. These economies can be greatly increased if a group of collieries is brought under a single control. The enormous waste and overlapping caused by the separate purchasing of timber and machinery was stressed at the Sankey Commission of 1919. Larger units are far more favourably placed for purchasing the manifold requirements of a modern colliery than are the small concerns. Quite early in his career Lord Rhondda organised a syndicate of colliery proprietors to buy their timber supplies through a central agency. This syndicate was so successful in its operations that it brought down the price of timber from 40*s*. to 17*s*. 3*d*. per ton, the negotiations being entrusted to the firm of Lysberg, Ltd. Its successful dealings attracted a large number of collieries, representing about one-fifth of the South Wales coalfields. This close connection of the colliery proprietors and the firm of pitwood importers had its inevitable effect on the extension and

[1] *Western Mail*, September 16th, 1921.

consolidation of colliery interests; for Lysberg, Ltd., soon entered other departments of industry and commerce, and became a leading firm in the business of coal exporting, shipping and pitwood importing. Lord Rhondda, the leading colliery proprietor of the country, became its chairman; and there was thus established a further consolidation of colliery interests.

Large scale production under the unified control of a combine offers, too, many economies through the establishment of central pumping and electrical power stations. These are far more economical than a large number of small, dispersed establishments. Such economies are always an incentive for a powerful colliery company to extend its interests, the more so if this extension is favoured by the geographic concentration of a number of collieries in one district. The possibility of realising the benefits of these economies in the form of additional profits has always proved a strong argument for the promotion of schemes of amalgamation, for anything that tends to increase profits is naturally welcomed by the coal owners.

In many other ways the unification of colliery interests makes possible the realisation of economies which are beyond the reach of the separate concerns, and more especially beyond the reach of the small companies. "Many economies are being realised in the working of collieries by amalgamation of a number of collieries in one ownership, or at least under one control." [1] That such advantages are favourable to the development of combinations is pointed out by another writer [2] who says that "many weaker concerns could be much improved by coming under the influence of more powerful management with a consequent benefit to the capital invested."

But the real, vital force making for combination is the possibility of influencing and controlling prices. This has been the driving incentive behind every attempted scheme of amalgamation. A slight increase in the price of coal has the immediate effect of a big increase in profit. If a combination therefore could control and restrict the supply it could immediately send up prices and realise an increase in profits much greater in proportion than the actual restriction of supply. This was the secret of the per-

[1] Jevons: *op. cit.*, p. 5.
[2] McNair: "Problem of the Coal Mines," p. 16.

manency of the Newcastle Vend ; and it has been a most important factor in the calculations of every amalgamation promoter. " Viscount Rhondda's great point was to induce those who are engaged in the coal industry to realise this law of price. If a 5 per cent. reduction in output only led to a 5 per cent. advance in price, his scheme would admittedly be of no advantage ; but if the 5 per cent. reduction led to a 20 per cent. advance, it would be a different matter."[1] In working out his scheme, Lord Rhondda assumed that if the requirements of coal consumers were met when the price of coal was ten shillings per ton, a slight restriction of supply by the combination would send up the price to twelve or thirteen shillings. During the war, especially, this " law of price " was exploited to the full by coal owners and merchants ; for " while prices were not fixed by 'definitely constituted rings, they were in effect settled for the whole industry by a few leading firms, and . . . as owners and merchants had a common interest in high prices, these had been maintained at an unduly high level.' "[2] Thus coal is so important a commodity and the structure of the industry so peculiar that under certain circumstances it needs no " definitely constituted " ring to exercise a powerful influence over prices.

A most potent cause of combination amongst capitalists in all industries is the necessity of resisting the demands of organised labour. The reports of the United States Industrial Commission concluded that the causes of combination in England are not only the desire of capitalists to secure the ordinary economies of combination, but also to gain a greater control over their workmen. The combine is certainly in a stronger position in relation to labour than is the single firm. It organises and completes the solidarity and interests of the employers. Just as the combination is more powerful than the single firm in the competitive struggle against other capitalist concerns, so is it also more powerful in the struggle of capital against labour. " Of recent years," says a writer on industrial combinations, " the difficulties between masters and men have become acute in the South Wales coal industry in

[1] Morgan: *op. cit.*, p. 163.
[2] " Labour in War Time " (G. D. H. Cole), pp. 133–134.

particular." [1] The coal owners of this part of the country were not slow to realise the immense power wielded by the Cambrian Combine during the long and bitter conflict between it and its employees in 1911; and there can be no doubt that such an experience facilitated the progress of combination amongst the coal owners of South Wales at least. Shortly after the strike the same writer suggested that "it is possible that industrial combination may find favour with South Wales coal owners and shareholders owing to the success of the Cambrian Combine, and also to the conviction which colliery owners are said to be realising, viz., that they must combine more closely in order to offer a more effective resistance to the various interests with which they come in contact, and sometimes into conflict." [2] These conflicting interests are in the main those of labour and capital; and they arise inevitably from the capitalist character of the industry.

The first national association of the coal owners, the Mining Association of Great Britain, is really a product of this antagonism of interests. The same antagonism has been, in the main, responsible for the formation of local associations. The national association was formed in 1854, and from time to time since then district associations have been formed and have affiliated with it. The association is now the authoritative national organisation of the coal owners. It is a federation of twenty-four district associations, and embraces altogether over 700 undertakings which control almost the whole output of the country. The number of collieries not associated with the national body is comparatively insignificant, and they have to follow the lead of the association in all matters of policy.

While the Mining Association does not fix prices or regulate output, it certainly wields a tremendous power over the mining industry. Its chief functions are: the determination of the industrial policy of the owners, the organisation of opposition to labour demands, the making of representations to the legislature, and, especially in times of a crisis in the industry, the moulding of public opinion by propaganda campaigns. Thus the association organised an anti-nationalisation campaign when the

[1] Carter: "Tendency to Industrial Combination," p. 295.
[2] *Ibid.*

miners put forward their demands for national ownership of the mines; whilst when, in 1924, the miners demanded revision of the 1921 agreement, almost every newspaper in the country published regular instalments of the "Story of Coal," which aimed directly at prejudicing public opinion against the miners' case.

The district associations, too, are the authoritative local organisations of the coal owners, and in many respects their functions closely resemble those of the national association. Through these local bodies the mine owners in each district are represented on the various conciliation boards, joint dispute boards, etc., at which rates of wages are arranged and disputes considered. These associations, like the national organisation, do not fix prices; but they serve as most convenient meeting places for tacit agreement in relation to all matters affecting the coal owners.

Both the national and the district associations represent a solid combination of capitalist interests. The fact that they are not directly involved in price fixing or the regulation of output does not in the least alter their character as typical capitalist combinations; for in all other matters affecting the industry, and in particular in the relation of capital to labour, they represent a high degree of organised solidarity amongst the employers. They constitute the coal owners' organised expression of the antagonism of labour and capital.

The Effect of the War on Industrial Combination in the Coal Industry

The war of 1914–1918 marks an entire revolution in the organisation and structure of modern industry. Throughout the nineteenth century it was an axiom of political economy that industry and commerce were the concern of the individual, not of the State. Government interference, in any shape or form, in the direction of control of industry was practically unknown; and it was commonly held from the days of Adam Smith that that Government was best which governed least. This was the general attitude of both the State and the capitalists right up to the eve of the war.

After 1914 it became evident that the old methods of conducting industry could not possibly bear the strain

imposed upon them by the extraordinary circumstances caused by the outbreak of war. There was not a single industry in the country organised on national lines, nor was there any machinery in existence in any industry to create this necessary organisation; and it was therefore evident that some such machinery had to be devised before the resources and power of these industries could be used for war purposes. This was particularly true of all the key industries, and especially so of coal mining.

The only organisation in existence capable of meeting the needs created by the war-time situation was the State. Quite early in the war the Government was compelled to interfere in the affairs of some of the leading industries for the purpose of directing their resources to the pursuit of the war. Coal, naturally, was a most important war-time material; for it was manifest that without a regular and constant supply of coal the manufacture of the necessaries of war would be impossible.

Early in 1915 the Government began to interfere in the affairs of the coal industry by the establishment of the Coal Mining Organisation Committee. The organisation of the industry in private hands had failed to meet the needs of the new situation, and "it early became evident that some system of organisation of the industry was imperative if an output of coal was to be maintained sufficient to meet the requirements of the nation." [1] An Act of Parliament passed in 1915 to regulate coal prices signified the further entry of the Government into the affairs of the industry. Other steps followed. At the end of 1916 the State took over the control of the coal mines of South Wales, and on March 1st, 1917, direct Government control was established over the whole coal mining industry of Great Britain. This control continued until March, 1921.

We are not so much interested, however, in the details of Government control as in the effect this had on the organisation of capital, more particularly in its influence on the development of capitalist combination.

The effect of the Government's intervention was certainly to encourage the progress of combination amongst the employers in all the leading branches of industry and commerce. In the coal mining industry, even long before

[1] Redmayne: "Coal Industry during the War," p. 13.

the period of actual control, the Government had constantly called together conferences of employers to consider the various matters concerning the industry. The chief object of all these conferences and consultations was the national organisation of coal mining in its various branches. Thus the problem of unification was discussed by representative conferences of the employers themselves; and while nominally they met to discuss the organisation of the industry from a national point of view, the opportunity was also provided for the discussion and organisation of their own interests. In many industries these State consultations resulted directly in the formation of permanent combinations of the employers. "The growth and power of these associations appears to have come about primarily from the novel circumstances of the war, under which the Government . . . found it necessary sometimes to consult the most informed opinion in a trade, . . . and it is also probable that the habit of co-operation and discussion, which has been the result of the formation of purely advisory groups of manufacturers and distributors for purposes of the war, will lead to a transformation of at least a part of such advisory groups into definite trade associations as soon as Government control over trade or industry is withdrawn." [1] Government control in the coal industry directly stimulated the formation of combinations and amalgamations; and the foundations of many important combines are to be found in these conclaves of the employers.

Apart from bringing the owners together to discuss important matters affecting the industry, Government control stimulated the process of capitalist combination in other ways. The direct object of the control was to organise as efficiently as possible to secure [2]:—

1. The regulation of the working of the collieries so as to secure the largest possible output of coal.
2. The more effective distribution of coal.
3. The regulation of the selling price of coal.
4. The prevention of unrest amongst the workmen.

At least three of these are precisely the objects of every capitalist combination. In order to achieve them the

[1] Report of Committee on Trusts, p. 4.
[2] Redmayne, *op. cit.*, p. 88.

Government—again in consultation with the coal owners —had to reorganise the entire industry. The whole of the country was divided into areas, and advisory committees, under the direction of the coal controllers, operated the scheme in these areas. A direct contact was established between producer and distributor. The distributive side was reorganised to supply the districts with coal from the nearest sources; and the old practice of "carrying coals to Newcastle" was stopped. This resulted in immediate and drastic economies in the expenses of transport. In addition to this the control was extended to the distributive side. Competition between the merchants was stopped; and in practically every department competition was abolished in favour of combination and co-operation.

These methods demonstrated in a very concrete manner to the coal owners the many advantages of combination. In the period following the war these lessons were not forgotten. The war-time organisation had left its permanent mark on the industry; and the coal owners were ready to grasp any advantage they could get from the new situation. From 1918 onwards there was a remarkable development of capitalist combination throughout the industry; and there can be no doubt that the organised economies demonstrated by Government control greatly facilitated this process.

Another stimulus to the growth of combination amongst the coal owners was provided by the enormous profits they reaped during the war years, the abnormal conditions caused by the war placing the coal industry in a very favourable position. Prices rose enormously, as the following figures show:

Year.	At Pit's Mouth.		Exports.
	s.	*d.*	*s.*
1913	10	1·52	13·82
1914	9	11·21	13·50
1915	12	4·80	16·72
1916	15	2·57	24·19
1917	16	6·97	26·60
1918	20	6·08	30·25
1919	26	2·97	47·21
1920	34	6·97	79·92

Throughout the war years the coal owners experienced a period of unexampled prosperity. High prices meant high profits. The following table shows what a lucrative investment for capital the coal industry was during the war :—

		Tonnage raised. (millions.)	Profits & Royalties. (millions.)
			£
Average five years to	1913	270	19·1
	1914	265	21·5
	1915	253	27·4
	1916	256	43·8
	1917	248	33·7
Jan.–June (annual basis),	1918	236	26·8
July–Sept. (annual basis),	1918	218	45·0

At the end of the war a great part of these profits was available for investment in other concerns, more especially in the case of the bigger companies. An industry making exceptionally high profits soon attracts that peculiar product of modern capitalism—the amalgamator—who may be a person or a company; and in the boom period immediately following the war, great departments of British industry were profitable spheres of activity for this type.

After the signature of the Treaty of Versailles, and when the dammed-up demand for goods of all kinds gave British industry an unnatural and transient boom, there was much short-sighted optimism as to the duration of the apparent prosperity. The results were not only further big extensions by manufacturing concerns, but also an incursion of financial and promoting interests into industries. (*Economist*, December 29th, 1923.)

During this boom period an excellent opportunity was offered to the bigger concerns in the coal mining industry to extend and consolidate their interests. With the enormous profits they made during the prosperous years, they brought up numerous other firms. Most of the important colliery companies spent millions of pounds in

this way in the course of a very short time. The Powell Duffryn Steam Coal Co. in South Wales, in the period from 1913 to 1921, doubled its own capital, while its investments in other companies increased by over four times. Examples could be multiplied of this process of extension and consolidation. Some small companies grew enormously; while the larger companies developed all the characteristics of big combines, absorbing as many as possible of the smaller undertakings. This absorption of smaller companies by larger ones was considerably encouraged by the operation of the excess profits duty, the larger combines and companies buying up a number of profitable, and even unprofitable, concerns in order to avoid the necessity of paying the duty.

The importance of coal as a war material needs no emphasis. Especially is it important to the iron and steel industry. The manufacture of a ton of finished steel requires about four tons of coal. In normal times the iron and steel companies consumed about one-seventh of the total coal output of the country. It is estimated that during 1913 they consumed 31,000,000 tons of coal. At an average value of ten shillings per ton, this would amount to £15,500,000. This illustrates to what an extent the heavy industries are dependent on coal.

The war period greatly accentuated this dependence. War-time requirements made an enormous demand on the iron and steel industries. The larger firms, under the influence of Government subsidies, adapted their plant to the production of war material; and in addition to this they established new works and installed new machinery. The result was an immense increase in productive power: and this meant a corresponding increase in the coal requirements of the iron and steel industries.

> The development of the steel works during the war, which, when completed, will give an annual capacity of 12 million tons of steel as compared with an output of 7½ million tons before the war, means that the trade will make a much greater call on our coal resources than in the past.[1]

The high coal prices which prevailed during the war made the dependence of the iron and steel industry on coal a source of considerable financial embarrassment to

[1] Coal Industry Commission, 1919, p. 1122.

the capitalists concerned. Moreover, dependence on outside sources for such a vital raw material interfered with the successful operation of the productive unit. A constant and regular supply of coal at as cheap a price as possible is of the most vital importance to the iron and steel industry.

The only way to obviate the inconveniences caused by this dependence was for the iron and steel companies to acquire their own collieries and thus secure control over one of their most important raw materials. This is precisely what they have done.

Before the war the practice of acquiring their own collieries by iron and steel companies was but slightly developed. Under the ægis of the war circumstances, however, it assumed enormous proportions, so much so that it may be said that this tendency to vertical combination constitutes the key to the organisation of capital in these industries since the war. All the big groups and combines expanded so as to control all the manufacturing processes through which their products had to pass. For this purpose, of course, coal was of the utmost importance. By the end of 1920 there was not a single important iron and steel group which did not own collieries.

The development of vertical combination, however, is not the only feature of the post-war period, though it is undoubtedly the most important. Horizontal combination, too, grew rapidly, in both the coal and the iron and steel industries. Coal companies bought up other coal companies, and iron and steel firms absorbed others in the same line of business. In addition many of the bigger colliery groups invested large sums of their surplus profits in iron and steel companies.

In general, there are three principal features to be noted :

I. The absorption of colliery concerns by iron and steel companies.

II. The amalgamation of colliery enterprises, and the absorption of the smaller collieries by the bigger groups.

III. Investments by colliery companies in iron and steel companies.

These constitute the main lines of growth of capitalist combination since the war. While it is true that the war

did not give birth to any of them, it certainly greatly encouraged development in these directions. By the end of the boom period in 1920, the war and the economic forces loosened by it had in many ways made a lasting impress on the coal mining industry. Not the least of these was the stimulus given to the development of capitalist combination in its various forms.

CHAPTER VI

THE MODERN COMBINATION MOVEMENT IN THE COAL INDUSTRY

From 1850 onward the coal mining industry of Britain expanded very rapidly. The technical revolution of the previous years had made possible the working of coal on a scale hitherto unknown. Previous to the industrial revolution the chief method of working had been by means of "levels" or "cuttings"; very often these were nothing more than surface scratchings. Such methods involved no very great outlay of capital, for, the coal being almost on the surface, there was no need for expensive installations of plant and machinery. Even in the early part of the nineteenth century it was quite possible, outside the northern coalfield, for a person who owned a horse and a few hand tools to start in business in the coal industry.

The application of mechanical inventions to mining, however, entirely revolutionised the whole technical structure of the industry. Deep shafts were sunk, and these were equipped with expensive shaft headgear, winding and pumping appliances, together with the necessary haulage and screening machinery. Once these inventions began to be systematically applied there was bound to be a vast extension of the industry all over the country. New districts were opened up and new shafts were sunk in the old districts. In addition to this the older collieries had to be entirely renovated in plant and equipment if they were to hold their own under the new conditions. The result was a steady increase in the coal production of the country. From 1800 onwards, there was a regular increase in output, but from the middle of the century this was greatly accelerated. The following table shows the decennial increase :—

1850 . . .	54,000,000 tons.
1860 . . .	84,042,000 ,,
1870 . . .	107,427,000 ,,
1880 . . .	146,969,409 ,,
1890 . . .	181,614,288 ,,
1900 . . .	225,170,163 ,,

This indicates not only that pits were being opened up, but also that the average output of collieries was growing rapidly. Not only was there an extensive development of mining operations, but an intensive development as well.

A revolution in the technical structure of any industry calls forth a corresponding revolution in its economic organisation. This was the case in the coal industry in the nineteenth century. The new mechanical devices cost a great deal of money; and the successful pursuit of coal mining required ever-increasing amounts of capital. It was no longer easy for any person to start his own coal mine; while, in a very short time, the initial expenses increased so much as to make it impossible even for the wealthiest coal owners to provide their own capital for mining operations.

It was to meet this difficulty of the limitation of individual resources that joint stock companies arose. From about 1860 onwards, this type of capitalist organisation became increasingly prominent in the coal industry. Here and there, it is true, individual ownership clung on tenaciously; but the main tendency was certainly in the direction of the development of corporate capital. All the main economic forces of the time were in its favour. Foreign trade in coal was extending rapidly, and new markets were being discovered. Under these circumstances large-scale production became increasingly important; while large-scale organisation of capital became no less a necessity. By the end of the nineteenth century all the chief coal-producing concerns were organised on the corporate pattern.

Throughout the second half of the last century these companies steadily increased the scale of their operations. Some companies sank two or more shafts, working as many as five or six different seams. In South Wales and the north of England this practice was rapidly extending towards the end of the century. Many colliery under-

takings showed a considerable degree of concentration in large units. In other industries, it is true, this had already occurred to a greater degree; but the tendency was now steadily asserting itself in coal mining. There were many undertakings producing more than a million tons per annum; while a number of companies owned a capital of more than a million pounds.

This process of concentration of capital was facilitated by geographical concentration. In South Wales at the turn of the century 80 per cent. of the steam coal output was produced by twenty firms. Even in 1896 Lord Rhondda maintained that the concentration of colliery undertakings had gone sufficiently far to establish a successful combination of the coal owners. In Scotland, the Fife Coal Co. was responsible, in 1907, for well over half the output of the district. Many colliery undertakings in the north of England, too, had been rapidly growing in size, and were becoming responsible for an increasing proportion of the total output and operating ever increasing amounts of capital.

The basis of the modern combination movement in the coal industry is provided by this process of concentration. Towards the end of the nineteenth century the tendency to concentration had become quite pronounced in many districts. It was no co-incidence, therefore, that the modern combination movement amongst the coal owners started about this time. During the last few years of the nineteenth century several combinations of colliery enterprises were established. In the north of England, in 1896, the firm of Sir James Joicey & Co. bought up the whole of the colliery and allied interests of Lord Durham. Even as early as that these interests indicated not only a considerable degree of concentration—the capital involved in the transaction was £1,000,000—but also of expansion beyond the coal industry; for they included, besides fourteen collieries with an annual production of 2,000,000 tons, a fleet of nineteen steamers. This is one of the earliest instances of a distinctly modern combination in the coal industry, and many of the bigger concerns in the district followed the example. Some of them absorbed a number of small undertakings, while many others amalgamated.

The direction given to the combination movement by the general development of capitalism within the coal

mining industry was towards a horizontal form of organisation. Vertical combination is organised chiefly for the purpose of controlling the sources of the supply of raw material. Coal is itself a raw material; and consequently there is no great incentive for a colliery amalgamation to develop along vertical lines. There certainly are exceptions to this rule; but the main tendency of combinations prompted by the internal development of capitalist organisation in the industry is horizontal. Almost all the early colliery combinations of note have taken this form.

The coal industry was, originally, drawn into the process of vertical combination by external factors. Chief amongst these was the development of the iron and steel industries. These industries went through very much the same process of capitalist development as the coal industry—from individual ownership to the joint stock company, then from concentration in large units to combination in its various forms. This represents the general evolutionary tendency of capitalism; but the process is not uniform in all industries. In the case of iron and steel it was much more rapid than in that of coal, and the development began much earlier. This was due, in the main, to the difference in the technical structures of the industries. A manufacturing industry is much more amenable to the application of mechanical inventions than is an industry like mining, which is so dependent on natural conditions. The repeated application of new processes to the iron and steel industry revolutionised the whole fabric of its technique; and it was inevitable that the organisation of capital should keep pace with this technical revolution.

In the early days of the iron industry each of the separate manufacturing processes was carried on by independent producers. Each of the raw materials was worked as an independent industry, as was also each stage of the manufacturing process. This was the case for some time even after the development of joint stock companies. One firm would specialise in the production of iron ore, which it would sell at a profit to another firm specialising in a further stage of the process. The only link between the various stages was exchange.

Towards the end of the nineteenth century, however, this state of affairs began to change. The dependence of the manufacturers on sources of raw material outside

their direct control was always a great inconvenience; whilst the profits made by the producers of raw material constituted what the manufacturers conceived to be an additional expense to themselves. As the iron and steel concerns expanded and their demand for raw material increased, their dependence on the producers of raw material became even more embarrassing. But this problem contained its own solution. For the expansion of these firms indicated an increased prosperity, and they gradually began to invest part of their surplus profits in buying up the sources of the raw material. At the beginning of the twentieth century this tendency was steadily, though gradually, asserting itself. In 1902 it was stated that "in a large number of cases the masters of pig iron are also owners of iron ore and coal mines, makers of coke, and manufacturers of iron or steel, or both. In some cases they also own their own railway lines, make their own plant to a greater or less extent, possess their own jetties and harbours, navigate their own ships, and carry on affiliated branches of business."[1]

This period marks the entry of the coal industry into the process of vertical combination. In order to secure an adequate and regular supply of fuel for blasting and other purposes, and to eliminate the profits made by the coal owners, the larger concerns in the iron and steel industries began to buy up collieries. "Of late years," said a writer in 1906, "it has become increasingly recognised that the pig-iron maker is in a more desirable situation when he controls his supplies of raw materials through the prerogative of direct ownership. . . . In such cases the profits that had formerly to be paid at each step along the line on coal, coke, iron ore, limestone, etc., become merged in one profit. It no longer happens that the blast-furnace owner must pay a profit to the mine owner, to the colliery owner, and to the coke manufacturers."[2] Towards the end of the last century the chief iron and steel undertakings began to pursue a systematic policy of bringing their supplies of coal under their direct and immediate control as a step towards becoming completely self-sufficient. In the years before the war this policy was increas-

[1] Jeans: "British Industries," p. 13.
[2] Jeans: "The Iron Trade," p. 175.

ingly prominent, and some of the bigger firms showed an amazing degree of integration. Many of them had succeeded in securing control of both the sources of raw material and all the stages through which the commodity had to pass in the subsequent process of production.

With some few exceptions, however, neither the vertical nor the horizontal type of combination was exceptionally pronounced in the coal industry before the war. There were, it is true, as has been pointed out above, several large firms which had become independent of all outside sources in the matter of raw material and manufacture; whilst there had been several amalgamations of large firms in the same line of business. The tendency certainly was there, but it had not, in England, acquired the significance it had in America and Germany.

An early example of horizontal combination in the coal industry is the United Collieries, Ltd., in Scotland. This company was formed in 1898 to acquire the properties of seven colliery undertakings. Four years later it amalgamated twenty-three other colliery concerns. To carry through this transaction its capital was increased from £300,000 to £3,000,000. Great things were expected from this combination, and an additional profit of 6*d.* per ton was confidently predicted. In a covering letter to the prospectus, the chairman stated that the amalgamation would benefit from all the advantages of large-scale production and combination, to the consequent advantage of the shareholders. This concern, however, seems to have been over-capitalised from the start. There were complaints, too, of inefficient management. The combination certainly was not a financial success. It had been formed in the boom years, when profits were high in the coal trade, and the prices paid for the collieries acquired were correspondingly high. When the boom period passed it was found that dividends could not be paid on the inflated capital. The preference shareholders appealed to the courts for a compulsory winding-up order, but this was refused. By 1908 so bad had the finances of the company become that eight of the collieries had to be sold and five were closed, while a year later another was disposed of on the market. In spite of all this, however, the financial position of the company was still quite precarious. In August, 1923, a drastic re-organisation took place, and

the capital was reduced to its present amount of £1,000,000.

One of the most important horizontal combinations in the coal industry before the war was the Cambrian Combine, in South Wales. In 1907, the Cambrian Trust was formed with a capital of £120,000. Immediately after its formation, it started on that career of extension and consolidation which made it famous. Its immediate object was to acquire control of a number of collieries in the same district; and in a very short time after its formation it had secured a controlling interest in the Cambrian Colliery Co., the Glamorgan Coal Co., the Britannic Merthyr Coal Co., and the Naval Colliery Co. Each of these concerns retained its identity, and technical and economic relations generally remained unchanged. Financial control, however, had passed to the newly-formed trust.

The combine soon extended its influence beyond the sphere of production. In 1908 a controlling interest was acquired in the firm of L. Gueret, which already controlled the Albion Steam Coal Co. Viscount Rhondda was the sponsor of the Cambrian Combine and its later extensions. He was chairman of the Cambrian Trust, and, through his position as director of other concerns, he was, as early as 1911, responsible for the control of ten steam coal collieries and four firms engaged in the distributive side of the coal industry.

In March, 1913, there was a further consolidation of the Cambrian interests. That year saw the formation of the Consolidated Cambrian, Ltd., to consolidate further the four concerns over which control had been secured. Under the earlier Cambrian Trust, the associated concerns continued as nominally independent companies, although, actually, they were controlled by the trust, which held the majority of their shares. With the establishment of the new combine these shares were exchanged for shares in Consolidated Cambrian, Ltd., which commenced operations with a capital of £2,000,000, of which £1,900,000 was given in exchange for the shares of the other companies. Even after this further merge the amalgamated concerns continued to be registered as separate companies, though practically the whole of their share capital was now held by the combine. " The four companies are independent in

all matters of sales and administration, but the controlling interest in their share capitals is held by Consolidated Cambrian, Ltd." [1]

Until the great acceleration given to the combination movement by the war, the Cambrian was certainly the most famous combine in the coal industry, for it had acquired at that period " control of a greater quantity of coal of the best quality than had any other undertaking." [2] The amalgamation secured for the Cambrian group control of an output of about 3,000,000 tons per annum. This, of course, was far from establishing a monopoly even in the steam coal industry. It certainly fell far short of the earlier programme of Viscount Rhondda, whose " original idea was to group together the whole of the collieries producing the best Admiralty coals. At that period, however, the scheme was regarded as impracticable, but Mr. Thomas started upon the less ambitious but none the less notable programme . . . to link up collieries." [3]

The real significance of the Cambrian Combine, however, was not its monopolistic character, nor even the extent of its consolidation, but that it represented in a very clearly-defined manner in the coal industry the transformation that was taking place in the organisation of capital. It really marked the transition stage from the independent company to the capitalist consolidation. After the failure of so many schemes, it had generally been accepted by economists and industrialists alike that the coal industry was permanently immune from the development of combination. The Cambrian Combine was a concrete refutation of that idea : it demonstrated that capital in the coal industry does not differ from capital in any other sphere of industry or commerce ; and that while the pace of the transformation differs in various industries, the direction is certainly the same.

It was not, however, the horizontal type of combine that was destined to revolutionise the entire organisation of capital in the coal industry. This was accomplished by the process of vertical consolidation, by means of which the coal industry became, to an increasing extent, an auxiliary of the iron and steel industry. This develop-

[1] " South Wales Coalfield," p. 99.
[2] *Ibid.*, p. 95.
[3] *Ibid.*, p. 95.

ment signifies, not only that individual coal owners are no longer independent, but that large coal owning companies, and even combines, are controlled by a few of the great combinations of the heavy industries.

Already, before the war, this process had been in steady operation for more than a decade. By the end of the war it had become the dominant characteristic of capitalism in these industries ; and in the boom years that followed, it was a deliberate policy of the leading firms and combines to buy up as many subsidiary concerns as possible. The result is that at the present time the leading capitalist undertakings interested in the iron and steel industries have become complete, self-contained organisations, controlling directly all the stages and processes of production. This may be indicated in the following general terms :

(*a*) Acquisition of sources of raw materials : ownership and control of coal, ore, limestone, etc.

(*b*) Ownership of railways, waggons, ships and other means of transport.

(*c*) Ownership of blast furnaces to produce pig iron.

(*d*) Conversion of iron into steel.

(*e*) Manufacture of finished steel goods.

(*f*) Establishment of sales agencies to dispose of the goods in the home and world markets.

At every one of these stages coal is a most important factor. It is not surprising, therefore, to find that the iron and steel firms have made it a systematic policy to acquire control over collieries. In each of the chief coal mining districts of Britain, though to a greater extent in some than in others, a large and increasing number of pits are directly owned by the iron and steel combines.

The Leading Capitalist Combines in the Coal Industry

(*a*) *South Wales*

Some districts are much more favourably situated than others for the establishment of combinations. The South Wales coalfield is one of them. This district has always been regarded by the propounders of combination schemes as possessing very decided advantages for the unification

of colliery interests. It has a practical monopoly of steam coal, while the entire coalfield shows a high degree of geographic concentration. Its dependence, too, on the export trade, and the connections established between various firms by common selling agencies, constitute favourable conditions for the development of industrial combination. In addition, the district is a favourable soil for the growth of vertical combination and the consequent linking up of collieries with the iron and steel industry. This has, indeed, been one of the outstanding features of capitalist organisation in this coalfield during recent years.

From a comparatively early period in the industrial history of South Wales there has been a very close connection between the coal and iron interests. About the middle of last century the coal industry was almost entirely in the hands of the ironmasters, who, however, regarded their mines as purely auxiliary undertakings to their more important business of iron smelting. This period saw the formation of the Rhymney Iron Co., the Tredegar Iron and Coal Co., the Ebbw Vale Co., the Nantyglo and Blaina Ironworks Co. These were established—one in each valley—to work the ironstone seams which ran almost side by side with coal seams and limestone deposits. About the 'sixties, however, the iron industry fell on lean times, and instead of working their furnaces at a loss the iron masters turned their attention to working coal at a profit. This decline in the iron industry was, however, only temporary, and the connection between coal and iron was never wholly severed. A few of the bigger companies continued to work both. In many parts—notably in the Swansea district—the metallurgical industries maintained their pre-eminence throughout.

This close connection—historical, geographical and economic—between coal and iron provided the basis for the development, in South Wales, of vertical combination on an ever-increasing scale. No precise date can be given, to the commencement of this process; but from the beginning of the present century it developed both extensively and intensively. At present some of the biggest capitalist combinations in the country have their chief interests in South Wales: although, of course, no modern combination confines its activities to one geographical area, but expands wherever opportunity offers.

One of the most powerful combinations, not only in South Wales but in the whole country, is Guest, Keen and Nettlefolds. As early as 1900 this company was formed, under the title of Guest, Keen & Co., to amalgamate three firms—the Dowlais Iron Co., Guest & Co., and The Patent Nut & Bolt Co. Before the amalgamation each of these firms had extensive interests in coal, iron and steel. The Dowlais Iron Co. was not, as its name implied, interested only in iron. Together with Guest & Co. it owned a number of collieries with an aggregate output of a million and a half tons per annum. It had, too, already commenced to establish those international connections which were later to become a feature of the combination; for even then it held considerable interests in the Orconera Iron Ore Co., operating in Spain. The Patent Nut and Bolt Co. also had already acquired some of the characteristics of a vertical combination. In addition to its extensive connections in the various branches of the steel industry, it owned a colliery with an annual output of a quarter of a million tons. The result of the amalgamation was therefore to give the combine a position of almost complete independence of outside sources for the requirements of manufacture.

This amalgamation, however, was only the forerunner of much bigger developments. It was stated at the time that the directors should pursue a policy that would give the company "a position of complete independence, and to hold its own in competition with the whole world." This policy has been regularly followed since the inception of the combine. In 1902, a further extension was made by the absorption of the firm of Nettlefolds & Co., steel manufacturers and screw makers. "The alliance of the latter with Guest, Keen & Co. was of great advantage; for it immediately solved the problem of acquiring raw material for the steel works. The motive was to establish their business more securely, in view of the strong competition to which they were subject, by obtaining control over their supplies of raw material and absorbing all intermediate profits." [1] After this absorption the firm changed its name and adopted the present title of Guest, Keen and Nettlefolds.

The same year saw a still further expansion in the power

[1] "The Trust Movement" (Macrosty), p. 38.

and activities of the combine, when the firm of Crawshay Brothers was absorbed. This, too, was a South Wales company, owning collieries and steel works in the Merthyr district. For some time after this no great activity was displayed in acquiring control over other concerns or in the absorption of competitors. In 1905 an attempt was made to amalgamate with the Ebbw Vale Iron and Coal Co., an important, though less powerful, South Wales undertaking. This proposal, however, never materialised. But though the combine did not expand in the direction of acquiring control over other concerns, it continued steadily to expand its own business. In 1900, the capital of the firm stood at £2,000,000. Early in 1902, it was increased to £3,000,000 in order to carry through the Nettlefold transaction. With the absorption of Crawshay Brothers, the capital was raised to £4,000,000. From now on till the end of the war hardly any absorptions or amalgamations took place, but there was a steady expansion in the size of the firm, and by 1913 the capital stood at £6,475,000.

As early as 1907, Guest, Keen and Nettlefolds was regarded as a "giant undertaking," and compared with the size of the average business unit at the time, the term was justified. Even though, however, it had assumed enormous proportions as early as that, it was still almost insignificantly small compared to what it became a few years later.

Nowhere can the effect of the war on the development of capitalist combination be more clearly seen than in the case of this concern. During the war, in common with all undertakings, especially those producing war material, it had made enormous profits. With the end of the war, and the removal of the restrictions of Government control, these surplus profits were available for investment in and the acquisition of other concerns. During the boom years of the post-war period, the company expanded enormously, as the following table indicates :—

Year.	Capital and Reserves.	Profits.
	£	£
1914	6,475,000	401,722
1919	7,960,000	417,140
1920	14,976,000	934,530
1921	15,925,000	884,121
1922	16,130,000	622,734
1923	17,630,000	844,919

In 1918, Guest, Keen and Nettlefolds started their post-war expansion by acquiring the whole of the share capital of F. W. Cotterill, Ltd., nut and bolt manufacturers, and from now on the history of the concern is one long process of absorption and acquisition. About the end of 1919, the Berry-Rhondda-Llewellyn group of South Wales colliery owners purchased the firm of John Lysaght, Ltd. This company had extensive iron and steel connections, and the operations of the company "included every process in the manufacture of its chief productions from the mining of the iron ore to the distribution of the output at home and abroad, and they were independent of outside sources of raw material."[1] Early the next year, Guest, Keen and Nettlefolds acquired a controlling interest in this concern, and from now on this vast combination made a regular practice of securing control of undertakings in coal, iron, steel and allied industries. In 1921, it secured control over L. Gueret & Co., the coal-exporting agents of South Wales. This firm had international connections, not only in coal, but in oil, coke, patent fuel, etc. The same year the combine, in conjunction with the Consett Iron Co., managed to secure the whole of the Krupp interests in the Orconera mines in Spain. It has further international interests through its connection with the firm of Braillier, Urban & Son, Ltd., of Vienna; whilst it is the chief shareholder in Tarmac, Ltd., and is responsible for the appointment of half the directorate.

In 1920, Guest, Keen and Nettlefolds purchased the whole of the ordinary shares of the Meiros Colliery Co., which, in turn, controlled the South Rhondda Colliery Co. Shortly afterwards it secured, through an exchange of shares, the Gwaun-Cae-Gurwen Colliery Co., in the anthracite district of South Wales. About the same time a controlling interest was acquired in the firm of Joseph Sankey & Sons, Ltd., and Bayliss, Jones and Bayliss, two Wolverhampton companies.

To catalogue the vast connections and inter-connections of this huge combination would be almost an endless task, and would involve a great deal of repetition. The concern has been appropriately called Guest, Keen and "Multifolds." Two recent absorptions, however, deserve to be noted, as indicating its latest activities. In November,

[1] Chairman's address, *Economist*, October, 1919.

1923, it secured control of two of the biggest coal-producing concerns in South Wales—the Consolidated Cambrian, Ltd., with all its manifold connections, and D. Davis & Sons, Ltd. This transaction gave an additional coal-producing capacity of about 5,000,000 tons per annum, as well as control of two undertakings with an aggregate capital of £2,500,000. D. Davis & Sons owned the Welsh Navigation Co., and had investments to the extent of about £250,000 in the Crown Preserve Coal Co., in which firm Guest Keen also had large interests. The Consolidated Cambrian, Ltd., had considerably extended its sphere of operations since its formation in 1913, though it had long been outgrown by other combinations. Both through interlocking directorates and the practice of companies to hold shares in other companies, it had acquired interests in Gueret & Co., a French ship-owning firm, in which Guest, Keen and Nettlefolds was also interested ; in the ship-owning firm of Pillson & Co., Ltd., and in the patent fuel undertakings of Thomas and Davey, and Amarae, Sutherland & Co. With the absorption of the parent undertakings all these subsidiary interests passed over to the control of Guest, Keen and Nettlefolds.

This is now one of the most complete vertical combines in the country. Its steel works are provided with raw materials from its own mines, while the plant and machinery used at the coal and iron mines are manufactured by the company itself. It is a self-contained organisation of enormous proportions, controlling every stage of the manufacturing process from the winning of the raw material to the final disposal of the commodities.

Another powerful vertical combine with extensive interests in South Wales is Baldwins, Ltd. This company began to develop in a vertical direction early in the twentieth century, and since then has acquired a large number of undertakings in coal, iron, steel and the allied industries. Its chief interests lie in South Wales, but it has long grown beyond national boundaries. The following classification of its properties may give some idea of the scope of its activities :—

Iron and Steel Works

Port Talbot Steel Works.
Margam Iron and Steel.

Brymbo Steel Works, Wrexham.
Swansea Hematite Iron and Steel.
Panteg Steel Mills, Newport.
Elba Steel Works, Gowerdon.
Briton Ferry Iron Works.
Pearson's Furnaces, near Dudley.

Tinplate and Galvanising Works

Panteg Sheet Works, Newport.
Lower Sheet Mills, Pontypool.
Phœnix Galvanising Works, Pontypool.
King's Dock Mills, Swansea.
Ashbridge Bay, Toronto.
Wilden Iron Works, Stourport.
Stourvale Works, Kidderminster.
Cookley Works, Brierley Hill.
Swinton Works, Dudley.
Blackwall, London.

Collieries

Aberbaiden.
Bryn.
Cribbwr Fawr.
Coytrahen Park.
Taylor's Navigation.
Ton Phillip.
Panteg.
Albion.

Brick Works

Landore Silica.
Blaendare Fire-brick Works.
Caello Brick Works.
Brymbo Fire-bricks.

Ore Mines

Holditch Mines, Hook Norton.
Oxfordshire Ironstone.

Quarries

Porthcawl Limestone.
Black Mountain Silica.

Tube Works

Landore.

Coke Ovens

Landore.
Port Talbot.
Cwmavm.

This indicates the expansion of the firm since its inception in 1902. From that time it has absorbed altogether about twenty companies as well as securing control in a number of others. Originally, it was interested solely in steel manufacturing, but "realising the importance of securing adequate and regular supplies of coal for the iron and steel works . . . attention was directed to the acquisition of the necessary collieries, until to-day the collieries department has developed into one of the largest and most important branches of Messrs. Baldwins."[1] Several collieries have been acquired in South Wales, and the identity of interests between coal and steel is testified by the fact that the chairman of Baldwins is a member of the South Wales and Monmouthshire Coal Owners' Association.

Although early in the century Baldwins had developed clearly-defined vertical characteristics, its development in this direction was powerfully fostered during the boom period that followed the end of the war. In 1913 its total capital assets fell considerably short of £2,000,000. By 1922 they had increased to £10,780,000. As soon as the war ended rapid expansions were made in all directions. New collieries and ironstone mines were acquired; extensive connections were established overseas, especially in Canada, and large interests were secured in a number of other companies; by 1921, the combine had acquired control of one-third of the steel output of South Wales, while its coal output in the South Wales coalfield stands considerably above 2,000,000 tons per annum.

In addition to the undertakings it has absorbed in iron, coal and steel, it holds controlling interests in important establishments, both in this country and in Canada. Chief amongst these are the British Steel Corporation and Baldwins Canadian Steel Corporation. The subsidiary undertakings in which it holds considerable interests include the South Wales Basic Slag Co., Basic Slag and Phosphate Co., Fairwood Tinplate Co., Sir William Arroll & Co., and the Shipbreaking Co., Ltd. Its interests in other concerns are so extensive that they practically equal the value of the plant and properties of the firm itself, as is shown by the following summary of its assets on June 30th, 1922:—

[1] "South Wales Coalfield," p. 46.

	£
Plant and properties of Baldwins, Ltd.	4,249,974
Investments in other companies .	4,123,260

This development of investments holdings in other concerns came into real prominence after the end of the war. In the short period of three years these investments had been increased almost seven-fold, as is shown by the following account of its properties and holdings on June 30th, 1919 :

	£
Entire ordinary share capital . .	2,231,730
Investments in other companies .	673,026

For over twenty years Baldwins, Ltd., has pursued a deliberate policy of vertical combination. It had made many strides towards this end from its formation to the outbreak of war, but it was during the boom period that followed that it acquired control of all those undertakings which, to-day, not only make it a practically self-contained vertical organisation, but which enable it also to control a large number of subsidiary companies.

The case of the Ebbw Vale Steel, Iron and Coal Co. agains shows the close connection, in South Wales at least, between iron and coal. This company was established in 1868, and it included within the scope of its activities even then the production of coal and pig iron and the manufacture of finished steel goods. Almost from its inception, therefore, it had certain characteristics closely resembling the modern vertical combination, although, of course, in those days it was far from being a self-sufficing manufacturing unit. It now owns a large number of collieries in South Wales, most of which are situated in Monmouthshire, also iron ore mines, railways, blast-furnaces, coke ovens and iron and steel works, and it employs almost the entire population of the Ebbw Vale district of South Wales.

Although throughout its existence the company has pursued a policy of vertical expansion, it is only during quite recent times that it has become a complete vertical organisation. During the war it made enormous profits, and, in common with so many other capitalist undertakings, utilised them for expansion when the opportunity presented itself. Few concerns have expanded so rapidly

in modern times. "The developments which have taken place during the last ten years are absolutely phenomenal. I wish some of the shareholders had sufficient interest in their property occasionally to pay a visit to Ebbw Vale. Perhaps if they did so they would give some credit to this board for the energy and enterprise which have characterised their actions during the past ten years."[1] From 1913 to 1922 the company expanded enormously. In the former year its entire capital amounted to £1,571,000. By 1922 it had increased to £9,299,000. During this period the company not only extended its own works, but acquired also a large number of new concerns. From 1914 to 1920 it spent on development over £2,580,000, and on the acquisition of subsidiary companies £2,803,000. All these purchases and investments were made out of surplus profits accumulated during the war.

The company now owns the entire share capital of John Lancaster & Co., colliery proprietors, thereby controlling Powell's Tillery Steam Coal Co. and Lancaster's Steam Coal Collieries. It has also secured the whole of the ordinary share capital of the Newport Abercarn Black Vein Coal Co., which owned two collieries with an annual output of 660,000 tons. From 1916 to 1920, four colliery concerns were absorbed, having between them a producing capacity of about 2,500,000 tons per annum.

It is not only in coal, however, that the combine has expanded. Its ramifications are manifold: "To-day your company owns 3,300 acres of freehold land; with its subsidiary companies it owns in addition some 11,000 acres of leasehold property. It has under construction two large modern blast furnaces, which, when completed, will make nine furnaces in all; and it has a large battery of modern by-product ovens. In addition to your iron and steel works you have a fine modern galvanised sheet works, besides many subsidiary industries; you possess a magnificent power station producing electrical energy from the waste gases of your blast furnaces and by-product ovens."[2] By 1922, with the completion of the

[1] Chairman's address, *Economist*, July 26th, 1919.

[2] Chairman's address, *Ibid.*, July 26th, 1919. The peroration of this speech is well worth quoting. After the war British capitalists had visions of endless prosperity: there was only one obstacle—organised Labour. Sir J. W. Brynon continued: "The attitude of Labour towards

two blast furnaces, the combine owned and operated nine out of the thirty-five furnaces working in South Wales. With the enormous developments of the war period it became a self-contained organisation controlling all the processes of production from the raw material to the finished steel goods. The chairman claimed that it was the only " self-contained iron and steel works in the country." This claim, of course, was not strictly accurate. Besides its self-contained character as a producing unit, the company produces many auxiliary commodities, while one-fifth of its total assets is in the form of interests in associated companies.

The extent of the undertaking is indicated by the following table of its annual production capacity at the beginning of 1923 :—

	Tons.
Coal	6,500,000
Pig iron	500,000
Steel	250,000

This does not include all the activities of the combine, for it is engaged in the production of bricks, coke and numerous other by-products. It is one of the biggest coal, iron and steel concerns in South Wales, and one of the most formidable vertical combines in the country.

Another South Wales concern which well exemplifies the tendencies of capitalism towards concentration and combination is the Powell Duffryn Steam Coal Co. ; and more especially does it show the effect of the war in stimulating these tendencies. This company, which was formed in 1864, was one of the earliest joint stock undertakings in South Wales.

Until the war period, although it had gradually expanded, it had not acquired any subsidiary undertakings, and its interests were primarily in coal. The post-war boom period, however, gave it its opportunity to pursue a

capitalism during the past few years has been critical: unhappily it grows worse every day. If Bolshevism, rampant to-day, becomes triumphant to-morrow, then industry will go down to the nethermost pit. . . . 'Gather ye roses while ye may,' take this afternoon your 15 per cent. dividend with a fervent and heartfelt prayer that the leaders of organised labour will learn to take a soberer, clearer and a saner view both of their own responsibilities and of the best interests of the class which they profess to represent."

policy of rapid expansion. During the war it had, in common with other coal-producing concerns, accumulated huge profits, and in the period immediately following, these profits were invested in expanding its own properties and in the acquisition of subsidiary concerns. The result was an enormous expansion in many directions, as the following table shows :—

Year	Capital & Reserves	Own Works	Investments
	£	£	£
1913	2,316,000	1,938,000	32,000
1918	2,816,000	1,977,000	166,000
1919	2,961,000	2,115,000	523,000
1920	3,911,000	2,413,000	1,093,000
1921	4,081,000	2,929,000	1,351,000

Thus it was from 1918 onwards that the Powell Duffryn Co. began really to extend its connections ; and it is only from this time that it has developed as a capitalist combine. Its chief interests still lie in coal, though it also produces bricks, pitch, sulphate of ammonia, and many other auxiliary products. The collieries it owns extend over three of the most fertile coal-producing valleys in South Wales, and cover altogether about 16,000 acres. Its colliery interests, however, are not confined to South Wales, for during recent years it has begun a steady process of penetration of the newly-developed Kent coalfield. This has been brought about mainly by means of interlocking directorates. The chairman of Powell Duffryn has since become [1] chairman of the Chislet Colliery, Ltd., Kent ; and one-sixth of the share capital of this company is held by the North Kent Coalfield, Ltd., of which, again, the Powell Duffryn chairman is a director. When it first extended its activities to the Kent coalfield, two directors of the Chislet Colliery Co. were co-opted on its board.

In March, 1920, the company acquired control of the Rhymney Iron Co. This was at one time chiefly an iron

[1] In 1923.

working concern ; but with the decline of the iron trade of South Wales in the 'sixties of last century, it turned its attention to the working of coal. At present it is a colliery company, though it still owns and works a brewery. In 1916, it had an output of over a million tons of coal, and when it was acquired by the Powell Duffryn Co. a capital of £1,000,000. It also owned about 20,000 acres of mineral property in the Aberdare and Rhymney Valleys.

In 1922, the Powell Duffryn Co., in conjunction with the Ocean Coal and Wilsons, Ltd., formed the Taff Merthyr Steam Coal Co. to work an area of coal lying between two existing collieries. Each of the parent concerns now owns half interests in the new company. Shortly afterwards the Minerals Separation and Powell Duffryn Coal Treatment and Briquetting Co. was formed, the capital being held jointly by the Powell Duffryn Co. and Minerals Separation, Ltd.

The Powell Duffryn Co. has for a long time had extensive international connections, especially in France. For many years it had established depôts in various parts of that country, and the whole of its business with French consumers was done through these. In 1914 all these interests were consolidated by the formation of the La Compagnie Française des Mines Powell Duffryn. This company, which has a capital of 7,500,000 francs, is now the continental sales agency of the combine.

In 1920, in conjunction with a firm of ship owners and exporters, the Powell Duffryn Co. formed the Maris Export and Trading Co. This concern has a capital of £238,000, and of this £140,000 are owned jointly by Powell Duffryn and its French subsidiary. The combine also holds a considerable interest in the Star Patent Fuel Co.

The company has been steadily extending the scope of its operations. It continues to sink new shafts and to open up new colliery districts. Only recently extensive properties were acquired near Cardiff, and new collieries have been opened up at Llanharran and Llantrisant. This expansion is shown by the steady increase in output which, in 1922, amounted to over 4,500,000 tons, exclusive of the 1,500,000 tons produced by the Rhymney Co.

Unlike many of the leading combines in South Wales, the Powell Duffryn Co. has made no great incursions into other branches of industry. Its interests lie chiefly in coal,

although it also owns considerable by-product plants, and has large investments in associated companies, and in both British and French Government Bonds. The following figures show some of its investments on December 1st, 1922 :—

	£
Associated companies and loans .	1,448,720
Investment housing . . .	126,540
French Government bonds . .	324,759
British Government loans . .	1,200,609

In spite of these other interests, however, the combine has expanded mainly by the acquisition of colliery interests; and the profits by means of which it has expanded have been derived in the main from the large number of collieries it owns.

An early combination established in the South Wales Coalfield was the result of the amalgamation, in 1908, of the Ocean Coal Co. with Wilsons, Sons & Co., Ltd., coal shippers and foreign depôt owners. Out of this was formed, the same year, the Ocean Coal and Wilsons, Ltd., which now owns all the shares of the two amalgamated concerns.

The Ocean Coal Co. is itself a combination of colliery enterprises situated in the Rhondda, Garw and Avon Valleys. It owns nine collieries with an aggregate annual output of 2,500,000 tons. In 1914, its capital amounted to £1,368,070. In 1920, this was increased by a further million. The Ocean undertakings cover an area of 15,000 acres, and this is still extending: for quite recently 2,700 acres of undeveloped mineral properties were acquired in the extreme west of the steam coal district.

Wilsons, Sons & Co. represent the distributive side of the Ocean combine. It owns coal depôts in almost every part of the world, its interests extending to Buenos Ayres, Rio de Janeiro, the Canary Islands, and numerous other places. Its activities, however, are not limited to coal selling, for it has considerable connections as a steamship agency. It also owns engineering shops and foundries at Dakar, Rio de Janeiro, Pernambuco, and Bahia. The capital of the company amounts to £2,100,000, the whole of which is held by the Ocean Coal & Wilsons, Ltd.

The motive for the amalgamation of these two concerns

was to bring under one control the entire process of production and distribution: in this way the middleman was eliminated, and the profits which he could claim for his services are realised by the company which owns the collieries. The Ocean Coal & Wilsons, Ltd., by buying up the shares of the producing concern and the distributive firm, unified those two departments of the coal trade under a centralised control. The two constituent companies have lost their identity in everything but name, and the real financial control is vested in the combine which holds the share capital of both. The combine also owns half the share capital of the Taff Merthyr Steam Coal Co., which is controlled by a joint directorate of the Ocean Co. and the Powell Duffryn Co.

The United National Collieries, Ltd., is a South Wales combine interested primarily in coal. This company was formed in 1892, and by 1914 had absorbed several colliery concerns. In August of the latter year it acquired the Standard Collieries, Ltd., which had an annual output of 400,000 tons. Early in 1915 it absorbed the Bute Merthyr Collieries, in the Rhondda Valley. In December of 1915 it acquired control, by an exchange of shares, of Burnyeat, Brown & Co., Ltd., owners of the Abergorky collieries in the Rhondda Valley, the Nine Mile Point Collieries in Monmouthshire, and an area of unworked mineral properties covering about 3,000 acres in the Sirhowy Valley. All these properties are now owned by the United National Co. It has an annual output of about 2,250,000 tons, exclusive of the output of the Burnyeat Brown Co.

This concern is one of the minor combines of the South Wales coalfield, its issued capital in 1922 amounting only to £1,602,130. It is, however, a very profitable concern, for in the five years from 1919 to 1923 inclusive, its profits amounted to more than half its capital. The following are the figures :—

Year.	Profits.
	£
1919	234,326
1920	237,703
1921	133,431
1922	131,829
1923	132,719

These figures are independent of the profits of the Burnyeat Brown Co., which continues nominally as a private company.

A big vertical combine extending far beyond the limits of South Wales is Richard Thomas & Co., formed in 1884 for the purpose of manufacturing tinplates. Almost from its inception it has followed a regular policy of absorption, but it is only since the war that it has become the big vertical combine it is to-day. The following figures showing the growth of its capital will convey an idea of the rate of its expansion :—

Year.	Capital. £
1899	200,000
1911	500,000
1913	800,000
1918	5,000,000
1920	9,000,000

The combine has not only extended its own works but has also acquired large interests in other undertakings. In 1918 it secured the entire capital of the Redbourn Hill Iron & Coal Co. Before the acquisition, this latter company had developed marked vertical characteristics ; for in addition to its collieries it owned blast and steel furnaces with a capacity of about 250,000 tons of steel per annum. It also owned extensive iron ore mines in Lincolnshire, as well as eighty-eight coke ovens and a number of by-product plants. With the absorption the whole of this passed over to the control of Richard Thomas & Co.

In 1920 the combine further extended its connections in Yorkshire by acquiring control of the New Sharleston Collieries Co., Ltd., which owns three mines close to the works of Redbourn Hill Co., with an annual output of about 600,000 tons, and is also engaged in the manufacture of bricks. It is still nominally an independent company, but financial control is vested in the combine, which is responsible for the appointment of the directors.

It is not only in Yorkshire, however, that Richard Thomas & Co. owns subsidiary colliery undertakings. It owns a number of collieries in the Swansea district, including the Loughor Colliery Co., with an annual output of 120,000 tons ; the Swansea Navigation Collieries, Ltd.,

with an output of 175,000 tons; the Raglan Colliery, Ltd., and the Cwmgwynen Collieries, Ltd. It also controls the firm of Glasbrook Brothers, Ltd., owning collieries with an annual output of about 300,000 tons.

About 11 per cent. of the capital of Glasbrook Brothers was held by the Grovesend Steel and Tinplate Co. In October, 1923, Richard Thomas & Co. acquired control of this concern, which, in addition to its interests in Glasbrook Brothers, had extensive connections in steel and tinplate works. It controlled the Whitford Steel Sheet and Galvanising Co., in which it held 99½ per cent. of the share capital. It also owned the entire share capital of the Raven Tinplate Co., while it owned 83 per cent. of the share capital of the Killan Collieries, Ltd., which has an annual output of 150,000 tons. During 1923, before its acquisition by Richard Thomas & Co., the Grovesend Co. expanded very rapidly. In quick succession it acquired the Duffryn Steel and Tinplate works, the Dynevor Tinplate works, and the Mardy tinplate works. It also owns about one half of the capital of the Llanelly Foundry Co. The following is a table of the output capacity of its own and associated undertakings:—

Works.	Output per annum (tons)
3 steel works	300,000
54 tinplate mills	125,000
28 sheet mills	80,000
1 colliery	150,000

The capital of the combine at the time of its acquisition was £1,100,000, which was paid by Richard Thomas & Co., partly in shares and partly in cash.

Through the acquisition of this already well-developed and powerful combine, Richard Thomas & Co. became one of the most formidable combinations in the country. Its interests now extend to iron, steel, coal, and a large number of auxiliary enterprises. Some idea of the magnitude of its operations may be conveyed by the following summary of its annual output capacity in coal, steel and tinplates at the end of 1923:—

	Tons.
Steel	800,000
Tinplates	400,000
Coal	1,250,000

Its tinplate mills and steel works are found in all parts of South Wales, while its interests in other directions extend to Bristol, Lincolnshire and Yorkshire. Since the war its investments in subsidiary companies have increased enormously, and of its total capital of £9,000,000, these make up about £3,000,000. Through these investments the combine controls a number of concerns producing coal, iron, steel, coke, bricks and by-products ; and while it is not, as yet, a completely self-contained organisation, it is rapidly moving in that direction.

A combine of a somewhat different type and on a smaller scale is the Tredegar Iron & Coal Co. formed in 1873 to work both iron and coal in Monmouthshire. Since that date, however, it has concentrated mainly on developing its interests in coal, though it still owns an iron works. Its own colliery properties include four pits at Tredegar and two in the Rhymney Valley. It holds also the entire capital of the Oakdale Navigation Collieries, Ltd., which has an annual output of about 700,000 tons. The whole of the share capital of the Markham Steam Coal Co. is also held by the Tredegar Co., and in 1922 it formed the Tredegar Southern Collieries, Ltd., in which it owns the entire share capital of £250,000.

Through its own and subsidiary undertakings the combine controls an annual output of about 3,000,000 tons. It also owns a light rail mill, and a plant for the production of bricks, pit blocks, artificial stone, etc. Its capital amounts to £2,000,000, about one-fourth of which is in the form of investments in other concerns.

The chairman of the combine is Lord Aberconway, through whom it is connected with a large number of undertakings in coal, iron, steel, transport, finance, etc., while through the chairman and one of its directors, Mr. Evan Williams, it is directly represented on the councils of the Federation of British Industries and of the Mining Association of Great Britain.

Quite a recent combination established in South Wales is the Amalgamated Anthracite Collieries, Ltd. This was formed in 1923, and, as its name implies, operates in the anthracite district of the coalfield. On its formation it acquired the whole of the issued capital of the Cleeves Western Valleys Anthracite Collieries, Ltd., which owned four collieries in the anthracite area, and held practically

the entire share capital of the Gellyceidrim Collieries, Ltd. At the same time Amalgamated Anthracite, Ltd., acquired the whole of the share capital of the Gurnos Anthracite Collieries, which also owned four collieries; and shortly afterwards the Cawdor and Cwmgorse Collieries, also in the anthracite district, were acquired. These acquisitions gave the combine at the very outset an output capacity of 750,000 tons per annum, and it has been estimated that its coal reserves amount to about 35,000,000 tons. Its properties extend into three counties and cover an area of over 7,000 acres. Its capital, at the time of its formation, amounted to £2,500,000.

Another anthracite combine of recent date is the United Anthracite Collieries, Ltd., formed in August, 1923. The prospectus, which was not issued till June, 1924, stated that "the company has been formed to acquire as going concerns and actively develop the following anthracite collieries in the Swansea district :—

The Great Mountain Anthracite Collieries (including the coal business of John Waddell & Sons, London, and the waggon repairing business of John Waddell & Sons, Llanelly).
The Ammanford Anthracite Collieries.
The Pontyberem Anthracite Collieries.
The New Dynant Anthracite Collieries."

Many advantages are expected from this amalgamation, for the "collieries are so situated as to afford exceptional opportunities for centralised management and control. They have, until recently, been worked under independent management, but great advantages have already accrued since unified management with attendant economies and increased efficiency were introduced." [1] The output of the combined collieries amounts to about 600,000 tons per annum, while the capital of the combined undertaking is £2,500,000.

Thus, in one year, two powerful capitalist combines have been established in the anthracite district. For quite a long time this part of the coalfield has been regarded as a favourable soil for capitalist combination. Many schemes of amalgamations have been propounded from time to time. Most of them, however, have failed to materialise

[1] *The Times*, June 26th, 1924.

until quite recently, when a considerable degree of success has been attained. At present three powerful combines seem to be making every effort to acquire control of as large a portion as possible of the anthracite coal area. Already, in 1921, Guest, Keen and Nettlefolds signified their entry into the district by the acquisition of the Gwaun-cae-Gurwen Colliery Co. In 1920 the Berry-Llewellyn-Rhondda group entered the field from another end by purchasing the Aberpergwm Collieries. These two groups, however, are very closely connected, for Mr. Seymour Berry is deputy-chairman of Guest, Keen and Nettlefolds, while Sir D. R. Llewellyn is a director. Now the Amalgamated Anthracite Collieries, Ltd., at the head of which is Sir Alfred Mond, and the United Anthracite Collieries, Ltd., with Sir Samuel Hoare at its head, have made very rapid strides in the direction of controlling this part of the South Wales coalfield. Thus there are three powerful capitalist groups bidding for control ; and during the next few years an intensive struggle is likely to develop for the complete control of the anthracite area.

A minor South Wales combine that has come into prominence since the war is North's Navigation Collieries, Ltd., which, until quite recently, was an ordinary company confining its activities to its own collieries. During the war it made enormous profits : from 1916 to 1919 inclusive, it paid an annual dividend of 20 per cent., and in 1920 a dividend of 15 per cent. The total profits from 1913 to 1920 amounted to £1,075,636, although at the end of 1914 its entire capital was no more than £600,000. In 1920, part of these huge profits was used to acquire control of the Celtic Collieries, Ltd., which has a capital of £400,000, and an annual output of 250,000 tons. This company still has a nominally separate existence, but it is controlled by the directorate of North's Navigation Collieries, Ltd. In 1923, it further extended its activities by the acquisition of the Imperial Navigation Coal Co., a big concern which had already, in 1920, acquired control of the Cynon Colliery Co. Both the Cynon and the Imperial now became subsidiaries of North's Navigation, Ltd. As the result of these operations the capital of the combine has been increased to £1,350,000. The total output of its own and subsidiary undertakings is about 1,600,000, while it is also engaged in working an ironstone mine.

The most powerful capitalist combination in the South Wales coalfield, however, is the Berry-Lleywllyn-Rhondda group. This is not a combine in the ordinary sense of being a registered company, but it is more powerful and its influence is more far-reaching than any of the formally organised combines in the coalfield. The interests of this group extend like red threads through the mesh of capitalism in South Wales, and, as in a tangled skein, it is impossible to say where they begin and where they end. They extend from coal to steel, patent fuel companies, selling agencies, newspapers, insurance companies, transport shipping, engineering, banking, finance, etc. One of the persons composing the group, Mr. H. Seymour Berry, is a director of twenty South Wales colliery companies with an annual output of about 13,000,000 tons, or about one-fourth of the total coal output of South Wales. Other members of the group have extensive colliery interests ranging from the smallest companies to the biggest combines in the industry. The group inherited the policy of expansion begun by Lord Rhondda, and since the formation of the Cambrian Combine it has been connected with almost every big deal in the South Wales coalfield. They have made a systematic practice of buying up shares in a large number of companies, by means of which, eventually, they have acquired control. In almost every case the companies with which they are associated retain a formal independence, which, of course, very effectively obscures the real power they wield.

The most potent fact that emerges from the ramifications of post-war capitalism in South Wales is the rapid consolidation of interests amongst the coal owners. By the end of 1920, approximately three-fifths of the entire output of this coalfield was under the control of four groups of allied interests; and, with the combination and concentration which have gone on since, the control wielded by these groups is now much greater. Not only have the various colliery interests coalesced, but, to a far greater degree, the coal industry has been linked up, through direct financial control, with the iron and steel industry. The technical and economic connection already existing between coal and iron and steel has now been sealed with the stamp of finance.

(b) *The North of England and the Midlands*

In the north of England the process of vertical combination has, during recent years, developed very rapidly, especially in the heavy industries. Movement in this direction has been dictated by the same technical and economic reasons which have operated elsewhere, but it has been powerfully fostered by favourable geographical circumstances. In no part of Great Britain is the centralisation of industries more pronounced, some of the leading industries of the country being concentrated within a comparatively small area.

There is at all times a tendency for manufactures to be established in places which provide them with easy access to the source of power. When, therefore, from about 1760, coal became the chief source of power, there was inevitably a tendency for the leading industries to group themselves near the coal seams. This tendency is especially apparent in the case of the iron and steel industries. Coal is the bulkiest raw material that enters into the manufacture of steel, and it has already been pointed out that about four tons of coal are used in the manufacture of one ton of steel. To transport this coal over long distances involves heavy freightage cost, and it is therefore much more economical to carry the iron ore to the coalfields than it is to bring the coal to the iron mines. Thus the location of the iron and steel industries has been determined in the main by the geographical distribution of the coal beds.

This concentration of industry is due in the first place to the work of Nature ; but it influences to a very high degree the work of man, and it is especially potent in influencing the organisation of capital. The concentration of an industry within a given area provides opportunities for combination which are absent when the various units are widely separated. This applies not only to horizontal combination, but to vertical combination as well. When the blast furnaces and the steel works are established near the coal mines, technical and economic needs soon facilitate their unification under one control. Once the process of amalgamating coal and iron has commenced, the manifest advantages of combination become a spur to further amalgamations. The geographical concentration of the

combines adds to the ordinary benefits of combination; for when their activities are concentrated within a certain area it is comparatively easy to establish a unified system of control over the various departments.

The north of England provides many of these advantages in the geographic location of its industries. Not only is it endowed with extensive deposits of rich coal seams, but also with important deposits of iron ore. Coal and iron are technically so closely related that, favoured as they are by geographic location, a most favourable condition is offered for their economic unification in great vertical capitalist combines. Under these circumstances combination in the north of England developed comparatively early; although, as in so many other cases, the war period gave it a great stimulus.

A northern combine of enormous size is Dorman Long & Co. While, however, its chief properties are found in Yorkshire and Durham, its activities are not confined to those districts, or even to this country; for, in addition to its ironstone mines, blast furnaces and coal mines, its iron, steel, and engineering works in Middlesbrough and London, it has extensive connections overseas. Both in Melbourne and Sydney, Australia, it owns important steel and engineering blasts, and it controls and is associated with iron, steel and engineering firms in India, South America and South Africa.

As early as 1899, this concern started on its career of absorption and amalgamation. In that year it brought under its control the firm of Jones Bros., owners of steelworks, etc., and the Bedson Wire Co. This was the period when the combination tendency was beginning to assert itself in the economics of British capitalism; and Dorman Long & Co. well exemplifies the development of that tendency. Towards the end of the last century the combine began to feel very keenly the need for control of sources of raw material. In 1899, the firm of Bell Bros., Ltd., was formed into a public company, in which Dorman Long & Co. owned half the share capital. A few years later the entire capital was acquired. This gave to Dorman, Long & Co. control of extensive supplies of coal, iron ore, limestone and coke. Since then the combine has steadily pursued a policy of absorption, and has become a self-contained organisation controlling all the stages of

manufacture. But it was not until the war period that it became the great octopus it is to-day. The circumstances of war time gave it the necessary opportunity for that hothouse expansion which has characterised it from 1914 onwards. Probably no other British combine has developed so rapidly in the last few years.

In 1916, under the ægis of a Government subsidy, large steel works were constructed at a cost of about £2,000,000. Part of the enormous profits made out of this and kindred undertakings was used for investments in other companies in order, eventually, to acquire control over them. This has been the keynote of the policy of the combine since 1914.

At various periods Dorman Long & Co. had acquired control of a considerable number of undertakings, including Bell Bros., Ltd., an extensive coal, iron and steel concern, the Carlton Iron Co., Sir B. Samuelson & Co., Ltd., and the North-Eastern Steel Co. Between them they represented a fairly well-developed vertical combine. Since this acquisition by the combine each of them had, until 1923, retained its identity and formally continued as an independent company, although the real financial control was vested in the combine. In 1923, Dorman Long & Co. further consolidated its interests by the complete absorption of these four subsidiary undertakings. Each of the companies ceased even its nominal existence and was merged into the greater unit of the combine.

These absorptions, naturally, greatly strengthened the power of Dorman Long & Co., for they unified completely under a central control the entire manufacturing processes from the acquisition of the raw material to the final sale of the commodity. Bell Bros., Ltd., produced coal, pig iron, ironstone, and limestone ; the Carlton Iron Co. owned coal and iron mines ; while the North-Eastern Steel Co. and Sir B. Samuelson represented the manufacturing stages of the process.

In addition to these properties the combine owns half the share capital of Wade and Dorman, Ltd. ; of Braithwaite & Co. ; and of The British Structural Steel Co. It also owns half the capital of Pearson and Dorman Long, Ltd., a coal concern which operates in the Kent coalfield. This marks the entry of the Dorman Long combine into the new Kent coal districts. It doubtless sees great

prospects of development here, for it has already had a working agreement with the Kent Coal Concessions, Ltd. In the same coalfield, for the same purpose, is the Powell Duffryn Steam Coal Co. The Kent coalfield is the most recently opened of the English coal districts, but it is rapidly passing under the control of a few powerful combines.

The annual coal output of Dorman Long & Co. is in the region of 2,000,000 tons, and it has been estimated that it has a steel producing capacity of about one-ninth of the total British output. It also owns extensive iron ore reserves, which are estimated at 53,000,000 tons; while its interests extend into all the subsidiary manufactures connected with coal, iron and steel.

Another northern concern which has extensive colliery interests is John Brown & Co., Ltd. Early in its history this company exemplified the combination tendencies of British capitalism. Even before the end of the last century it had made extensive inroads into many branches of industry, and it followed this up with regular absorption and amalgamation in coal, iron and steel, shipbuilding, etc. The following classification of its chief properties will convey a general idea of the scope of its activities :—

Iron and Steel

Atlas Steel Spring and Iron Works, Sheffield.
Thos. Firth & Sons, Sheffield.
Carnforth Hematite Iron Co.

Collieries

Aldwarke Main.
Car House.
Rotherham Main.
Dalton Main.
Rossington Main (promoted jointly with the Sheepbridge Coal and Iron Co.).

Shipbuilding

Engineering and shipbuilding works on the Clyde.
Large interests in Harland and Wolff, Ltd.

Ironstone

Lincolnshire.
Northants.
Spain.

INTERESTS IN

The English Electric Co. (which, in turn, controls the Coventry Ordnance Works, Ltd.).
Craven's Railway Carriage and Waggon Co.

Through these extensive connections the combine has for some time been a complete, self-contained unit. It controls all the processes of production from the winning of raw material to the complete construction of warships, without at any stage being dependent on other firms. It mines its own coal and iron, manufactures its own steel and builds its own ships. Its annual output of coal at the present time is about 1,000,000 tons, most of which is used in its own works. The Rossington Main Colliery Co., which continues nominally as an independent concern, has an annual output of 500,000 tons, and a capital of £750,000.

John Brown & Co. represents one of the most complete self-contained vertical concerns in the country, although it is by no means the largest. Its authorised capital at the end of 1923 amounted to £5,000,000; but this does not indicate its true strength; for, according to its issued balance sheet, its total assets were £9,979,830.

Bolckow Vaughan & Co., Ltd., is another northern combine with interests extending into many branches of industry. This company dates back to 1864, and even then it worked coal and iron together, although, naturally, on a somewhat small scale. Its first step towards combination was taken in 1899, when it acquired the Clay Lane Iron Co., which owned considerable ironstone properties in the North. This step was taken in order to acquire control of the iron ore used at its furnaces. The technical and economic requirements of the firm dictated further expansion. For a long time its chief activity had been the manufacture of pig iron, and in order to secure a market for this material it had to become a steel producer. Thus the firm, originally engaged in an intermediary stage of manufacture, extended its activities both backward to the control of the raw material and forward to the manufacture of the finished steel goods. After a steady process of expansion in these directions, and the absorption of a number of concerns, it acquired a number of coal and iron mines in Durham and Yorkshire. In close proximity to

these mines it owns also a number of blast furnaces, rolling and galvanising mills, and steel works.

During the war the combine made some very handsome profits, as the following figures show :—

Year	Profits (£)	Rate per cent.
1914	371,261	6
1915	223,315	6
1916	510,185	11
1917	650,024	12
1918	591,059	12
1919	589,735	12
1920	696,950	12

Some of these huge profits were used to absorb other concerns. In 1916 the entire share capital of the Eston Sheet and Galvanising Co. was acquired. This concern still has a nominally independent existence, but as its shares are owned by Bolckow Vaughan it escapes the light of publicity on its financial organisation. In 1920, the combine secured control of the Darlington Rolling Mills Co., Ltd., while it also holds a controlling interest in Intermediates and Explosives, Ltd. Early in 1923 it purchased all the ordinary shares of Redpath, Brown & Co., a firm with extensive iron and steel connections in Newcastle, Glasgow and Manchester. Quite recently, Bolckow Vaughan extended its colliery interests by opening the Dean and Chapter Collieries in Durham. Even as early as 1913 its collieries had an annual output capacity of over 2,000,000 tons, and since then this has increased considerably.

In the international sphere Bolckow Vaughan has extended its interests to Spain, where it owns half the share capital of the Luchana Mining Co., Ltd., which owns iron ore mines in that country. By this means it is able to secure the necessary supplies of iron ore for its furnaces, steel works and mills. The recent expansion of the combine may be indicated by a comparison of its financial position in 1913 and in 1922. In the former year its total assets stood at a little over £4,000,000. By June, 1922, they had increased to £7,473,645.

Another extensive vertical combine in Durham is the Consett Iron Co., Ltd. In spite of its name its activities are by no means confined to iron working. Its interests

range from the production of coal and iron ore to the manufacture of finished steel products in their various forms. In the county of Durham it owns eleven collieries, which employ about 10,000 men.

In order to obtain iron ore for its furnaces and steel works it early extended its connections to Spain, where it owns the subsidiary undertaking of the Consett Spanish Ore Co. Through this concern, and in conjunction with Guest, Keen and Nettlefolds, Ltd., it acquired the Krupp interests in the Orconera Ore Co. Both the Consett Iron Co. and its Spanish offshoot have the same board of directors, which, with Guest, Keen and Nettlefolds, has representatives also on the board of the Orconera Co.

To eliminate the freightage charges involved in the transport of the iron ore from Spain to Durham, two steamers have been acquired, and in this way the transport as well as the supply of the ore is brought directly under one control.

While there are certainly many bigger combines than the Consett Co., it is doubtful if there are any more profitable. During the war, and the boom period which followed it, it made enormous profits, as the following figures testify :—

1915 . . .	12½ per cent.
1916 . . .	50 ,,
1917 . . .	40 ,,
1918 . . .	40 ,,
1919 . . .	35 ,,

Between 1917 and 1922, inclusive, it made an aggregate profit of £2,608,197. Yet, even in 1919, its total capital amounted to no more than £1,500,000.

The Staveley Coal and Iron Co., located in Yorkshire, is a somewhat different type of combination. While its chief interests lie chiefly in coal, they are, however, by no means confined to this industry. It owns ironstone mines and iron works in various parts of northern England and in the Midlands. It holds considerable shares also in the Burton Ironstone Co. and in the Loddington Ironstone Co. In the coal industry it has very extensive interests. Through its directorate it is closely connnected with a large number of colliery undertakings. It controls the Brodsworth Main Colliery Co., the Bullcroft Main Co., and the

Markham Main Co. In conjunction with the Hickleton Main Co., it promoted the Brodsworth Main Co., and owns half its capital of £1,000,000, the two parent companies nominating the directors. In 1923, the Yorkshire Main Colliery, Ltd., was floated with a capital of £1,000,000 all of which is held by the Staveley Co. In addition to this, it owns considerable interests in the Firbeck Main Colliery Co. The total annual output of the collieries of the Staveley Co., amounts to about 2,500,000 tons.

For the disposal of this enormous quantity of coal the combine has been compelled to extend its interests into the distributive sphere. In his speech in 1919, the chairman stated that the Staveley Co. and its associated and subsidiary collieries had "joined together in a certain manner for the disposal of their coal under the name of the Doncaster Collieries Association." The capital of this association, which amounts to £449,500, is jointly owned by the Brodsworth Main, Bullcroft Main, Hickleton Main and Yorkshire Main Collieries. Through its interests in these undertakings, and the control it wields over them as a consequence, the ultimate control of the sales association rests, however, with the Staveley Co.

In the by-product industry the combine has very substantial interests. At its extensive by-product plant it produces coke, sulphate of ammonia, benzol, sulphuric acid, tar macadam, caustic soda, nitric acid, aniline oil, etc. It also owns brick works with a capacity to produce three million bricks per annum.

The financial affairs of the company show the same extension and consolidation. The following figures indicate the increase in its capital since 1914 :—

Year	Capital. £
1914	1,100,250
1923	2,528,416

Many concerns, it is true, control a larger unit of capital, but the Staveley Co. is undoubtedly a most powerful capitalist combination. "There has been a great deal of talk," explained the chairman in 1919, "about the concentration of forces, and in a quiet way, I think we can consider that the Staveley Co. has some very large holdings

in South Yorkshire in connection with its various interests." The company has made considerable expansion since then. and further developments are apparently contemplated, for it is proposed to call up capital to the extent of about £350,000 before the end of 1924.

A combine organised on very much the same lines and operating in the same area as the Staveley Co., is the Sheepbridge Coal and Iron Co. This is one of the earliest joint stock companies in the coal industry, for it dates back to 1864. Even in those early days it was a fairly substantial concern for its time, and at its inception had a capital of half a million. Originally, it was interested in the main in the working of iron, for which purpose, of course, it required coal. This provided it with a direct incentive to acquire its own coal mines. Part of the coal produced was used at its iron works and part was disposed of by sale.

Before the war the company had made many extensions and had acquired control, directly and indirectly, of a considerable number of collieries. It now controls the Dinnington Main Coal Co., which has a capital of £400,000 and an annual output of 750,000 tons. This concern, in turn, owns a large interest in the Firbeck Main Collieries, Ltd. Through its indirect control of the latter company, therefore, the Sheepbridge Co. comes into close contact with the Staveley Co., which, as has been noted above, is also interested in the Firbeck Main Collieries. This inter-connection of powerful interests demonstrates not only the fact of interlocking directorates, but also the purely modern phenomenon of interlocking combines. A semblance of independence is maintained, but in actual fact financial control is vested in the hands of a small but powerful group.

Other colliery concerns controlled by the Sheepbridge combine include the Maltby Main Colliery Co., which it promoted, and the Rossington Main Colliery, which it promoted jointly with John Brown & Co., and which, therefore, brings it into close contact with the wide interests of the big iron and steel combine. It owns also half the share capital of the Newstead Colliery Co.; while at Chesterfield and Mansfield it owns the Glapwell and Langwith Collieries which, between them, have an annual output of 1,000,000 tons. The total coal output of its own

and subsidiary undertakings was in 1923 close on 3,500,000 tons.

These extensive interests in coal, however, do not by any means cover the whole of the activities of the combine. It owns the Sheepbridge Iron Works, at Chesterfield, where there are installed foundries, blast furnaces and rolling mills. Its ironstone mines are situated in Lincolnshire, Rutland and Northamptonshire. Close to its collieries it has erected coking plant and machinery for the manufacture of by-products, and as a means of extending its control over the by-product industry, it has acquired a controlling interest in the Langwith By-Product Co. Further developments are contemplated by the combine. It has secured considerable coal boundaries in South Yorkshire and elsewhere, and plans have been made for the erection of coke ovens and new by-product plant at a number of its collieries.

Pease and Partners, Ltd., is another big combine with interests in Durham and Yorkshire. Since its formation in 1898 this concern has steadily expanded in many directions. In Yorkshire alone it owns ten collieries, and in various parts of the country it owns seven limestone quarries and five ironstone mines. This company was formed at a time when the tendency towards combination was beginning to assert itself in the economics of British capitalism, and this tendency soon became evident in the affairs of Pease and Partners, Ltd. Even in the first year of its existence it produced the following output :—

Coal . . .	1,800,000	tons.
Coke . . .	715,000	,,
Ironstone . .	1,196,000	,,
Limestone . .	260,000	,,

Through its directorate, which consisted mainly of the Pease family, the firm was, from the outset, favourably placed for extending its interest. It was not, however, until the war that it became prominent as a powerful combine. Early in 1916, it acquired the Tees Bridge Iron Co., Ltd. Two years later it purchased the entire share capital of T. and R. W. Bower, which, in turn, owned the Allerton Main Collieries. In 1920, it made a further rapid extension of its colliery interests by acquiring the capital of Henry Stobart & Co., and the North Bitchburn

Coal Co. The Normanby Iron Works Co., Ltd., which it had previously controlled, was absorbed in July, 1923.

In addition to these extensive interests in coal, iron, etc., the Pease combine owns the Tees Iron Works, and controls, through ownership of shares, the undertaking of William Whitewell & Co., Ltd. A big colliery concern in which it holds a large interest is the Horden Collieries, Ltd. This is another example of the interlocking of combines. Two of the directors of Pease and Partners represent the combine on the board of the Horden Co. On the same board are the chairman of Dorman Long & Co., and the chairman of the late concern of Bell Bros., which the former recently absorbed. Horden Collieries, Ltd., is itself a large concern, producing coal, coke and by-products. It has a share capital of £1,500,000, while its investments and holdings in other companies amount to £152,000. Nominally, it is an independent undertaking, but it is really controlled by Dorman Long & Co. and Pease and Partners.

Other companies controlled by the Pease and Partners combine include the Billing Ganister and Mineral Co., the Stainless Iron and Alloys Co., Ltd., and the National Benzole Co.

As a result of these acquisitions the combine has become the centre of a group of undertakings producing a variety of important commodities. The following is a summary of the output of some of its chief products for the year ending March 31st, 1924 :—

Coal . . .	3,803,710	tons.
Ironstone . . .	872,001	,,
Limestone . .	331,294	,,
Coke . . .	1,176,435	,,

This, however, does not exhaust the whole of its activities. Like most other large colliery enterprises it has found the exploitation of by-products a most profitable form of investment. At many of its collieries it has installed by-product plant, which turns out sulphate of ammonia, benzol, tar, etc. It also produces large quantities of pig iron. The slump in the heavy industries has made this less remunerative than it otherwise might have been ; but in spite of this, the output for 1922 totalled well over 150,000 tons.

This expansion of the productive side of the combine has meant a corresponding expansion of its financial organisation. The company was floated with a capital of £1,000,000—a comparatively large sum for the time. The slow progress of the combination tendency before the war is indicated by the fact that in 1910, this had increased only to £1,200 000. In 1918 it was £1,530,000. Between 1918 and 1920 it was practically doubled, for in the latter year it was brought up to £3,000,000. Thus in the short boom period following the war the combine expanded financially more rapidly than it had in the previous twenty years of its existence. This shows very clearly to what a great extent the war facilitated the development of capitalist combination in these branches of industry.

A concern which very forcibly exemplifies the interconnections of capitalist interests and the impossibility of drawing hard and fast lines of demarcation between the various combines is the Pearson and Knowles Coal and Iron Co., Ltd. This company dates from 1874, and early in its history began to be interested in coal, iron and various departments of engineering. At its formation it brought under one control the collieries of Pearson and Knowles, the Dallam Forge Co.'s ironworks, and the wire manufacturing concern of the Warrington Wire Co. These operations, it is true, were not carried out on a very large scale, for as late as 1907 its total capital amounted to only £860,000.

The circumstances of the industry, however, compelled the company to organise on a more elaborate vertical basis. In 1905 it was feeling very acutely the inconveniences of being dependent upon an uncontrolled market. This meant alternate periods of boom and stagnation, sometimes working at high pressure, at other times part of the plant and machinery lying idle. The only alternative to these vicissitudes was to control the market, and this, of course, could be effected only through the power of finance. In order to secure the necessary continuity of its operations the company brought under its control one of the firms to which it sold its iron products. This firm was its largest customer, "and an opportunity occurred, and we took it, of purchasing considerable interest in shares in that company. The result has been most satisfactory to the continuous

working of our wire rod mill. There is no doubt continuity means cheapness as well as other advantages in our work." [1]

From this time the company steadily extended its control over the manufacturing processes. Originally it was interested mainly in coal and iron, "but to meet the altered circumstances of trade, its works have had to be adapted to deal with steel in constantly increasing proportions." [2] It was for this purpose that it acquired control of Rylands Bros., Ltd., manufacturers of wire mills. In 1907, it further extended its interests in coal by acquiring a number of collieries, chief amongst which were the Junction Colliery, and the collieries of the Moss Hall Coal Co. This company, which owns three collieries, with an annual output of about 4,000,000 tons, and has a capital of £300,000, is now controlled by Pearson and Knowles.

Another large undertaking controlled by Pearson and Knowles is the Partington Steel and Iron Co., itself a vertical combine on a small scale. It owns two iron ore mines at Northampton, and also iron ore properties at Stoke-on-Trent. Near Manchester it owns very large manufacturing plant, including six blast furnaces, twelve steel furnaces, and two rolling mills. At the same place it has installed a battery of 200 coke ovens. The capital of this concern is £700,000, all of which is held by Pearson and Knowles.

In 1923, the combine secured a controlling interest in the firm of Burnell & Co., owners of galvanised sheet mills and manufacturers of a large variety of finished steel products. This acquisition makes the combine practically self-contained, for it now owns and controls iron ore mines, coal mines, coke ovens, iron works, steel works, finishing works and a number of by-product plant.

Thus, through its own extensive properties, together with its control of various companies producing coal, iron, steel, etc., Pearson and Knowles is itself a well-developed vertical combine. Yet—and this shows how the same capitalist interests extend beyond firms, companies and combines—it is only a part of a much larger combine. In February, 1920, a controlling interest was acquired in this combine by a much more powerful combine—

[1] Chairman's Speech, 1903.

[2] "Mining Manual and Year Book," 1924.

Sir W. G. Armstrong Whitworth & Co., Ltd. This is one of the biggest capitalist consolidations in the country. For many years it was interested mainly in the manufacture of engineering plant, etc., but through its control of Pearson and Knowles, and all the subsidiaries of the latter, it now has very large interests in the coal mining industry. These interests have been secured, not through its direct acquisition of coal mines, but through the medium of its subsidiary undertakings. Its control of some collieries is exercised indirectly through two or more companies. The following may make this plain :—

Sir W. G. Armstrong Whitworth
controls
|
Pearson and Knowles
which controls
|
Moss Hall Coal Co.
which owns
|
Low Hall Collieries and
Maypole Collieries.

This, of course, does not include the whole of the activities of Armstrong Whitworth, or of its subsidiary, Pearson and Knowles ; indeed, it represents but a minute fraction of the interests of both. It may, however, serve to indicate some of the amazing ramifications of modern capitalism, with its interlocking directorates, companies and combines.

This exercising of control, direct and indirect, serves very effectively to hide the real financial position of both parent and subsidiary undertakings. No reports are issued concerning the affairs of the controlled undertakings, except in a very haphazard fashion ; while great pains are taken to obscure the financial state of affairs of the controlling combine. This is the case with Armstrong Whitworth, as, indeed, with most of the other big combines. " It is a great pity," says the *Economist*, " that such a highly respectable and sound undertaking as Sir W. G. Armstrong Whitworth should not set a better example to less fortunate companies, in the matter of publishing detailed accounts." [1]

[1] *Economist*, May 17th, 1924.

When a combine, through the acquisition of shares, secures control over another company, the latter often continues as a separate unit. This, again, obscures the real financial control wielded by the combine. Very often the absorptions are made nominally by the subsidiary company, but take place really under the direction of the parent company. This method has been developed to a considerable extent by the Armstrong Whitworth combine, not only through Pearson, Knowles & Co., but through many other companies also. The following table shows the growth of three of its subsidiary undertakings between 1913 and 1921 :—

Capital and Reserves

	1913.	1921.
	£	£
Pearson and Knowles & Co. .	1,570,000	3,039,000
Crompton & Co. . .	287.000	839,000
A. & J. Main & Co. . .	150,000	919,000

Each of these has absorbed a number of undertakings, but the real control in each case is vested in the parent combine.

A northern combine which is a direct product of war-time conditions is the United Steel Companies, Ltd. This was formed in 1918, to amalgamate the Workington Iron and Steel Co., Ltd., Steel, Peech and Tozer, Ltd., Samuel Fox & Co., and the Rother Vale Collieries, Ltd., Rotherham. At its very inception this amalgamation represented a well-developed vertical combine. The Workington Co. was itself such a combine on a small scale, for it owned iron ore mines, coal mines, blast furnaces, steel works, smelting works, etc., while it had large investments in other companies. It directly controlled the Harrington Coke Ovens, Ltd., and the Bigrigg Mining Co., Ltd., together with considerable mining properties in India. Steel, Peech and Tozer, and Samuel Fox & Co. were steel manufacturers, while they also held the entire share capital of the Frodingham Iron and Steel Co., which, in turn, controlled the Appleby Iron Co. The coal supplies required by the combine were secured by the acquisition

of the Rother Vale Collieries Ltd., which owned six collieries at Treeton and Rotherham.

Since the amalgamation the combine has made many acquisitions, chief amongst which are :—

1. The entire ordinary share capital of Daniel Doncaster & Sons.
2. Martino Steel and Metal Co.
3. A controlling interest in Thomas Smith, Coventry.
4. Control of Cleaton and Workington Junction Railway.
5. The Distington Hematite Iron Co.
6. The All-Hallows Collieries, Ltd.
7. Control of the Beckermet Mining Co., Ltd.
8. Interests in the Hoffman Manufacturing Co.

These acquisitions make the combine a self-contained productive unit. Within the comparatively short space of a few years it has effected the complete integration of a number of industries—a position which has taken most of the other big combines from fifteen to twenty years to attain. This combine therefore throws up in bold relief in its own organisation the revolutionary effect of the war on the development of combination.

Full particulars of its financial organisation are not available ; while those which have been published up to now tend to obscure rather than to elucidate the real financial position. The ordinary share capital of the combine in the year ending June 30th, 1923, was £9,324,065 ; but this very much underestimates its financial power. Its total assets amount to the grand total of £16,828,215. The constituent items of this, however, are not given separately, but are grouped in general portmanteau items. One of these includes investments, land, minerals, plant, etc., the total of which amounts to £11,825,978. The same secrecy is maintained concerning the financial affairs of the subsidiary companies, about which there is very little information issued.

This list of northern amalgamations and combines is by no means exhaustive, for only those which show very clearly the more recent tendencies of capitalism have been included. A further list could be compiled to show the more indirect methods of control wielded over coal companies by the great iron and steel, shipping, and engineering combines. An example of this is Furness

Withy & Co., Ltd., primarily a shipping combine, but with interests extending indirectly through steel and iron to coal. It has very close associations with a number of colliery undertakings, including the Cargo Fleet and Iron Co., which not only owns blast furnaces, steel mills, etc., but also holds a large interest in the Wingate Coal Co. It is also associated with the Weardale Steel, Coal and Coke Co., which was promoted by Lord Furness; while, together with Pease and Partners, Ltd., it is closely connected with the Broomhill Collieries, Ltd.

Vickers Ltd., one of the biggest and the most powerful combines in the country, has many associations with the coal industry. Through the interlocking of directorates in particular it is connected with the Carlton Main Colliery Co., Ltd., the New Ingleton Collieries, Ltd., and the Fenton Collieries, Ltd. The chairman of the Vickers combine sits on the boards of the two former companies, while the combine is also represented on the board of the latter.

(c) *Scotland*

The chief coal combine in Scotland is the Fife Coal Co. Unlike most of the English and Welsh combines, this is almost entirely interested in coal, although it works a few ironstone seams near its colliery properties. The company dates originally from 1872, but in 1895 it was reorganised on its present basis. The older company had already acquired a few colliery concerns in the county of Fife, but immediately after the reorganisation in 1895, a deliberate policy of absorption was begun. "It became apparent in 1895 that amalgamation of the concerns belonging to the Fife Coal Co. and the Cowdenbeath Coal Co. would have many advantages, and in 1896 the Cowdenbeath and Lumphinnans Collieries were taken over by the Fife Coal Co." [1] This absorption was followed by a whole series of others. In 1900, the Lochore Coal Co. was acquired, followed immediately by the Fife and Kinross Coal Co. Shortly afterwards part of the properties of the Bowhill Coal Co. was purchased, the company being completely absorbed in 1909. The Rosewell Coal Co. was acquired in 1906, in 1908, the Donibristle Colliery Co., and in 1923, the Earl of Rosslyn's Collieries, Ltd.

[1] "The Fife Jubilee Year," p. 15.

Altogether the combine now owns about twenty-eight collieries, and from its formation it has been responsible for about one-half of the total output of the county of Fife. The following figures show the output of the county and that of the Fife Co. :—

Year.	Output of County.	Output of Fife Co.
	Tons.	Tons.
1872 . . .	1,550,500	70,000
1896 . . .	3,633,455	1,277,197
1910 . . .	8,647,404	4,072,060
1913 . . .	9,680,206	4,343,644

Later figures are not available; but it is certain that, through its recent acquisitions, the proportionate share of the Fife company has increased rather than decreased; and its total output now cannot be far short of 5,000,000 tons per annum.

The financial position of the combine shows the same progressive increase, as the following figures testify :—

Year.	Capital.
	£
1872	125,000
1896	647,500
1913	1,234,075
1920	1,642,206

Since the reorganisation of its finances in 1896, the combine has been one of the most successful colliery concerns in the country. Even before the war it was paying very handsome dividends; and from 1914 onwards it shared in the general prosperity of capital invested in the coal industry. Here is a list of its dividends between 1915 and 1921 :—

1915	25 per cent.
1916	35 ,,
1917	25 ,,
1918	27½ ,,
1919	25 ,,
1920	17½ ,,
1921	10 ,,

The other big Scottish coal combine—the United Collieries, Ltd.—has already been dealt with. These two are the biggest combines in the coal industry of Scotland. There are many other formidable concerns in the industry, but none which shows so clearly the progress of industrial combination.

The chief combines with colliery interests have now been briefly dealt with. Yet it is most difficult to say exactly how far combination has developed in the coal industry, for a number of factors tend to obscure the degree to which the process has been carried. It was stated at the Coal Commission of 1919 that there were 1,500 companies in the coal industry. Four hundered of these, however, were quite small concerns, producing less than 2,000 tons each per annum. The number of shareholders in coal undertakings was given as 37,000. Actually, of course, the number is much smaller, for the really big shareholders have investments in a large number of undertakings at the same time. Moreover, the number of companies on the register is no indication of the number of independent colliery concerns. Some companies continue nominally as independent enterprises, and are registered as such, when the whole of their share capital is held by a combine or a syndicate. With the development by combines in recent years of the practice of holding shares in companies, it has become still more difficult to define precisely whether a company is independent or not. In the coal industry the matter has been further complicated by the inroads made by the iron and steel combines; for, even though a colliery company may appear to be independent, very often it is really only a subsidiary part in a long chain of vertical processes. Enough has been said, however, to show that the real power in the coal industry is wielded, not by the small masters and independent companies, but by the great vertical combines with enormous material and financial resources at their disposal. That is the most potent fact that emerges from the post-war ramifications of capitalism in the coal industry.

CHAPTER VII

METHODS OF COMBINATION IN THE COAL INDUSTRY

Modern combination methods vary considerably, and are determined partly by the economic structure of the industry and partly by the financial considerations involved. Combination in the modern capitalist world can be brought about only by the power of finance; for not only is finance in its various forms—credit, shares, stocks, etc.—the medium through which control is exercised over industry: it is also the means of establishing every form of capitalist combination. Every combination, therefore, in addition to being a consolidation of economic resources, represents also a corresponding consolidation of financial power. In modern industry this power is, in the main, determined by ownership of shares; and it is through the exchange and interchange of these shares that most of the big capitalist combines have been built up.

Most of the modern methods of combination have been applied to the coal industry. The oldest and most elementary form of capitalist combination is the pool, or cartel—a voluntary association of producers who place the marketing of their commodities under a general restriction. This type, as we have seen, has an old and traditional association with the coal industry, and was, in fact, the first form of capitalist combination in this industry. The essential weakness of this form of organisation is its inability to enforce its agreements; and especially in times of bad trade and general business depression it is invariably found to be too loosely knit to stand the strain. The classic example of this type in the British coal industry is, of course, the northern Vend. Loose price-fixing associations have also from time to time been established in various districts; but since the 'nineties of last century the coal industry has been singularly immune from this method of combination.

An intermediary stage between the loose, federated

form of combination and the more closely-knit amalgamated type is found in the organisation of the Rhine-Westphalian Coal Syndicate. The syndicate is really a corporate sales agency, and is responsible for the sales of the products of its constituent member-firms. It is a registered joint stock company, but its capital is held entirely by the combined companies. These companies appoint, on the basis of shares held, the members of the various departmental committees of the syndicate ; and any agreement of the syndicate is legally enforceable on its members. Thus it overcomes one of the inherent weaknesses of the federated combination, and its power, in effect, is as wide and authoritative as that of a consolidation.

No such organisation, however, is found in the British coal industry. Here the modern methods of combination have been in the direction of either merging different undertakings into one big consolidation, or bringing a number of hitherto independent enterprises under one control. This may be achieved either by the formation of a new company to carry out the amalgamation, or by the expansion of one of the existing companies. The combination of enterprises can, in fact, be achieved by four different methods :—

I. The expansion of an existing company to absorb others.

II. The formation of a new company tc absorb a number of undertakings.

III. One of the existing companies securing control over others.

IV. The formation of a new company to secure control over others.

All of these methods have at different times been adopted in the coal industry, although hardly any one of them can be seen in its pure form, for most of the big combines adopt various methods of expansion in accordance with their needs. In many cases the securing of control over a company is but the prelude to its complete absorption, and what was at one time a controlled subsidiary undertaking loses its identity in the greater unit of the combine. The method of complete absorption is generally called the direct merger ; while the method of securing financial control over others is known as the indirect merger.

When a direct merger of companies is accomplished through the expansion of one of the existing companies the absorbed concerns lose their identity, not only financially, but also nominally. The expanding combine takes over the entire assets and liabilities of the other undertakings and amalgamates them with its own properties. These other concerns are then wound up and cease to exist. Exactly the same process is to be observed when a new company is floated to absorb a number of separate undertakings. Instances of each of these methods could be given from the recent history of combination in the coal industry.

This method of direct, outright absorption or consolidation is not, however, so often adopted as that of securing control over other undertakings. This is especially the case in the mining industry where, owing to difficulties of valuation, it is much easier to acquire the shares of a company than it is to buy its property in the form of land, buildings, resources, etc. There is very often, too, a decided advantage to the combine to continue the corporate existence of its subsidiary. Some companies have what is termed a "goodwill" value in connection with their name, and this would terminate if their corporate existence ceased. Another difficulty encountered in the consolidation of companies is the expense involved in liquidating the companies, paying off the debentures, etc. At a recent shareholders' meeting, the chairman of Pease and Partners, Ltd., stated [1] :—

> The question of companies being consolidated rather than the parent company owning subsidiary companies is one which has been much discussed lately, and it is the policy of this company gradually to consolidate the various undertakings, but we think it is advisable to carry out this policy gradually as opportunity arises. In the past we have consolidated Normanby Works Co., Wilton Pease & Co., the Witton Fire-brick Co., and now Chilton Colliery, but we cannot see any advantage in incurring the large cost which would be entailed by liquidating the whole of the companies at once. We should have to obtain the consent of our lessors, and it would necessitate paying off the debentures, in some cases at a premium, which are being paid off gradually under the sinking fund.

Thus from the capitalist standpoint there are many objections to immediate and direct absorption by combines.

[1] *The Times*, May 29th, 1924.

In view of these objections a method of combination that has come into increasing prominence in recent years is for a company or a combine to secure a controlling interest in other companies. This is what has become known in America as the holding company method, though it is by no means a peculiarly American institution. A holding company, as the name implies, holds the whole share capital of two or more other companies, or a sufficiently large number of the shares to secure control.

In the unification of capitalist enterprises, this type has many advantages over the method of complete and outright absorption. Its first advantage from the capitalist point of view is that it very effectively obscures not only the extent of combination in an industry, but also the exact amount of power wielded by a combine. After the capital of a company has been acquired, and, consequently, after it has lost the basis of its independence, it continues to be registered as an independent company. Thus it is almost impossible to say where the power of the combine begins and where it ends: it is a case of "wheels within wheels," multiplying with ever-increasing complexity. One example of the complicated character of capitalist combination has been given in the case of Sir W. G. Armstrong Whitworth. Another concern that well exemplifies the same process of extensive expansion and complex indirect control is Guest, Keen and Nettlefolds. Its control extends to combines, through which again it controls other companies. The following may help to make this clear:

Guest, Keen and Nettlefolds
controls

Consolidated Cambrian, Ltd., which
controls

Cambrian Collieries, Ltd.	Brittannic Merthyr Coal Co.
Glamorgan Coal Co.	Naval Colliery Co.

In this labyrinth of controls, not only does the workman not know his employer, but the precise destination and distribution of the profits of the industry remain a mystery. The infinite possibilities under these circumstances of obscuring the general financial position can be easily

understood; especially when, as in this case, the ultimate control rests with a small group associated with the Berry-Llewellyn-Rhondda interests.

The unification of colliery enterprise by means of the holding company has many other advantages over the more direct methods of combination. When, for instance, as often happens, it is desired to bring certain enterprises under one control, and at the same time to interfere as little as possible with the general arrangement of the existing organisation, the holding company offers very decided advantages; for with this method it is only the control that is altered, and the economic and technical apparatus remains unchanged. From the financial aspect, too, this method of merging has many features to recommend it to a capitalist combine. When this method is adopted there is no need to liquidate the other companies, or to interfere in any way with the debenture holders and the preference shareholders. This latter point is of the greatest importance to the combine; for if the market price of the debentures and preference shares is below par, it is a direct loss to the combine to have to pay for them at their full face. The same applies, too, to the ordinary shareholders who do not want to sell, and who, therefore, would refuse to sell at a price much higher than the market quotation.

With the holding company, however, all these difficulties are avoided. This method of combination leaves entirely undisturbed the debenture and preference shareholders, together with the shareholders who do not want to dispose of their securities. The essence of every process of amalgamation is the securing of control over other enterprises; under capitalism, this control is determined by ownership of shares. In order, therefore, to secure all the benefits of amalgamation all that is necessary for a combine to do is to acquire a sufficient number of the shares of any company to give it a voting majority. By this means it can bring the company under its own immediate control without disturbing debenture or preference shareholders, or those ordinary shareholders who do not wish to sell.

Some excellent examples of the holding company are to be found in the coal mining industry, more especially since the industry began to attract the attention of the

iron and steel magnates. The many advantages of this method of unification naturally made it very popular during the post-war boom period, when so many combinations were formed. A number of the bigger combines developed almost exclusively in this direction; and some concerns which, before the war, had specialised in the production of coal, iron or steel, had, by the end of the boom period, become well-developed holding companies. The surplus profits realised from their own and subsidiary undertakings were used not so much for the extension and improvement of their own plant and machinery, as for the acquisition of shares in other companies. This tendency is very clearly shown in the growth, during and since the war, of almost all the big iron, steel and coal groups. A few concrete examples may serve to illustrate this. The case of Guest, Keen and Nettlefolds, for instance, exemplifies this very clearly. Previous to the war this combine had large investments in other companies, but in the boom years that followed they were tremendously increased. The following table indicates the lines of its expansion :—

Year.	Capital and Reserves.	Own Works.	Investments.
	£	£	£
1914	6,475,000	2,821,000	2,677,000
1919	7,966,000	2,821,000	4,171,000
1920	14,976,000	2,898,000	11,689,000
1921	15,925,000	3,000,000	12,741,000
1922	16,130,000	3,082,000	13,266,000

Thus, up to 1914, there was a fairly even proportion between the value of its own works and that of its investments; but since the war the combine has concentrated almost entirely on increasing its investments. These investments now total over four times the value of its other properties. At the present time Guest, Keen and Nettlefold & Co., while it retains its own works, is essentially a holding corporation, and the greater part of its revenue is derived from its investments.

The growth of Dorman Long & Co. indicates the same lines of development. Before the war, this combine, unlike Guest, Keen and Nettlefolds, had but slightly developed its interests in other companies ; but from 1919 onwards it grew very rapidly in this direction ; and its investments in other companies steadily outpaced the increase in its own works—in spite of the fact that it was encouraged to expand the latter by the aid of direct Government subsidies. The following table shows the financial progress of the combine since 1913 :—

Year.	Capital and Reserves.	Own Works.	Investments.
	£	£	£
1913	2,079,000	870,000	695,000
1918	4,034,000	1,801,000	2,400 000
1919	5,531,000	2,534,000	2,610,000
1920	7,518,000	3,127,000	3,618,000
1921	8,915,000	3,490,000	4,601,000
1922	9,130,000	3,377,000	5,022,000

Dorman Long & Co., therefore, while not pre-eminently a holding combine, has developed rapidly in that direction from 1918 onwards. Like the Guest Keen combine, it used its war-time profits to extend its sphere of control beyond its own works ; and every increase in its investments indicated a corresponding measure of control acquired over other companies.

Most of the other important coal, iron and steel combines have adopted the same method of expansion. By the end of the boom period which followed the war there was in these industries hardly any important capitalist group which did not own large investments in other companies. The table on p. 145 shows the proportion of capital and investments of a few of the leading combines in 1922.

These investments represent not only an accumulation of surplus profits invested for the purpose of deriving revenue : they represent a corresponding extension of the controlling power of the combine over subsidiary enter-

Combine.	Capital.	Investments.
	£	£
Baldwins	8,000,000	4,123,260
Ebbw Vale Co. . . .	3,700,000	2,805,974
Pease and Partners . .	3,000,000	1,890,576
Powell Duffryn [1] . .	3,618,317	1,448,720
Richard Thomas . .	9,000,000	3,160,193
Tredegar Iron and Coal .	2,000,000	714,177
Andrew Knowles & Son .	750,000	241,083

prises. For when a combine acquires a majority of the ordinary shares of some company it at the same time acquires control over the company; since with the ordinary shares goes voting power, and with voting power goes control. When this control has been acquired by a combine, the controlled concern becomes its puppet undertaking. The real power becomes vested in the hands of the directors of the combine who, if they do not automatically become directors of the subsidiary, at least elect their own nominees to the positions. In most cases, however, the directors of the combine are also directors of the controlled undertaking. On the surface, it would appear that the only change that has taken place is in the *personnel* of the directorate of the subsidiary undertaking; actually, however, this change is but the outward form of the deeper and more fundamental change caused by the extension of the power of the combine.

The examples already cited are not of purely holding companies, but of concerns which, owning properties in the form of iron, steel and coal works, have, in addition, developed this type of organisation in recent years. There is, however, another variant of the holding company. This type of corporation may be formed not only by the expansion of an existing company, but also by the formation of a new company to acquire control over two or more concerns. In order to do this the newly-formed company

[1] The Powell Duffryn Steam Coal Co. has also large investments in other than commercial and industrial undertakings; it owns £1,200,609 in British Government bonds, £324,759 in French Government securities, and £126,540 in investment housing.

purchase a sufficient number of shares to give it a controlling interest in the undertaking to be amalgamated. The separate companies then maintain their independent legal existence, for they continue on the register as trading joint stock companies. Their financial independence, however, has disappeared, and control is vested in the hands of the directors of the new company. The directors of the combine then control the separate companies, nominate their directors, and supervise their affairs.

As a rule the holding company secures control over the undertakings to be amalgamated by an exchange of shares. It is very rarely that cash is directly involved in the process. The holding company is, of course, a registered joint stock undertaking, and has its own shares; but its property consists almost exclusively of shares it holds in its subsidiary enterprises. In order to acquire the shares of the companies to be combined, the shareholders in the latter are offered for their holdings so many of the shares of the new company. When this has been accomplished, the new company owns the right to the profits of the controlled concerns. With these dividends derived from the shares it owns in other companies it pays dividends on its own shares. Sometimes, as in the case of a pure holding company—a company which has no assets except the shares of other companies—the profits made by its subsidiaries are its only source of income.

By thus securing control of a number of companies, a very effective combination is brought about. Through the control wielded by the holding company the subsidiary undertakings are managed and directed just as if they were integral parts of the greater unit of the combine, and at the same time they preserve their legal and nominal independence.

An early example of this type of amalgamation in the coal industry is Ocean Coal and Wilsons, Ltd. This company was formed in 1908 to acquire the shares of two other companies. It has no properties of its own in the form of collieries, etc., and its revenue is derived almost [1] entirely from the shares it holds in the Ocean Coal Co. and Wilsons, Ltd. Both of these companies are still in

[1] It also owns some £200,000 in War Loan Stock.

existence, but only nominally so; for their shares are held by the holding company, which nominates their directors and regulates their affairs. Very little information is thus available concerning the position of the two controlled enterprises; for "the balance sheet, being that of a holding company, does not disclose much information as to the position of the constituent companies."[1] According to the official information, the balance sheets of the subsidiaries are "issued to shareholders only," who are, of course, the directors of the holding company.

A similar type of undertaking in the South Wales coalfields is the Consolidated Cambrian, Ltd. This company was formed to amalgamate four colliery companies. The combine as such owns no colliery directly—though it controls a large number through its subsidiaries—and its properties are made up exclusively of shares it owns in other companies. The assets side of its balance sheet for December 31st, 1922, reads as follows:—

	£
Cost of shares, debentures and Cambrian buildings	1,855,803
Debtors	30,940

No balance sheets are issued for the controlled undertakings, and the state of their financial affairs is obscured by this portmanteau item in the holding company's balance sheet.

Another holding corporation recently established in South Wales is the Amalgamated Anthracite, Ltd. It has no collieries of its own, but its subsidiary undertakings own a considerable number. Its revenue, therefore, is derived from the shares it holds in these concerns. When this company was formed it acquired a controlling interest in about ten collieries—by buying up their shares. Some of these were paid for in cash, others in its own shares. The controlled companies still continue a separate legal existence, but in every other respect they have lost their independence. The syndicate is responsible for their finances, for appointing their directors, and for their management generally.

In the north of England the formation of new holding

[1] *South Wales News*, April 9th, 1924.

corporations has not proceeded very rapidly. The lines of development there have been mainly in the direction of the expansion of the older companies. The United Steel Companies, Ltd., however, is an exception. Formed in 1918, it was originally a holding company, being established to amalgamate three coal, iron and steel companies. The amalgamation was formed by the acquisition, by the new combine, of the shares of the separate undertakings, which still continue in existence as registered companies. The assets of the holding company are still predominantly investments in associated and subsidiary undertakings, though it has recently acquired some other properties in the form of land, minerals and plant.

Another method of amalgamation adopted by some of the larger companies is the promotion of subsidiary undertakings. These "daughter" companies may be formed either to acquire control over some other company or to start an entirely new venture. The latter have been the more pronounced in the coal industry. Sometimes one big combine forms such a subsidiary undertaking; often two combines unite for the purpose. Thus John Brown & Co., jointly with the Sheepbridge Iron and Coal Co., promoted the Rossington Main Colliery Co.; whilst in South Wales, the Ocean Coal Co.—itself controlled by Ocean Coal and Wilsons, Ltd.—formed, in conjunction with the Powell Duffryn Steam Coal Co., the Taff Merthyr Steam Coal Co. As early as 1902, the Tredegar Iron and Coal Co. promoted the Oakdale Navigation Collieries, Ltd.; whilst in 1922 it established a further subsidiary as the Tredegar (Southern) Collieries, Ltd. Other examples of the same process could be multiplied.

The method of controlling these promoted subsidiary companies is exactly the same as in the case of those companies over which the combine has acquired control by the purchase of their shares. The shares of the company are held by the promoting combine, which naturally draws the profits on them. These profits then appear in the balance sheet as part of the dividends of the combine. The directors of the subsidiary undertaking are either identical with those of the parent company or are directly nominated by the latter.

All these methods have served very effectively to extend the ramifications of capitalist combination in the coal

industry, while at the same time obscuring the real degree to which trustification has developed. Amalgamation through the holding company keeps intact the existing outward form of the controlled subsidiaries ; and a large number of colliery companies at present on the register are merely subsidiaries of the large combine. In everything but name they are defunct as independent undertakings ; but the peculiar form of the holding corporation guarantees the continuity of their nominal existence until such time as a policy of more complete absorption is embarked upon by the combine.

A very effective process of capitalist combination which does not find expression in any definitely constituted organisation is accomplished by means of interlocking directorates. This is, as we have seen, essentially a product of the joint stock type of capitalist organisation ; but in the evolution of this form towards combination and amalgamation of companies, interlocking directorates act as very powerful levers ; and when capitalist organisation reaches the stage when different capitals combine, the close connection established between the various companies through their directors serves to facilitate and consolidate the process.

By means of interlocking directorates the different concerns thus connected are brought into very close relationship, and even when no outward organisation gives expression to this connection, tacit combinations can be, and are, formed in this way. Moreover, this process need not be confined, like a horizontal amalgamation, to one line of business, or limited, like a vertical combine, to a series of related processes ; it can extend beyond industries and beyond nations. Its only limitation is that which applies to the investment of capital—namely, the possibility of realising a profit.

The process of vertical combination draws the coal industry into close connection with the iron and steel industry ; but interlocking directorates bring it into close contact with many other branches of industry, and with commerce and finance. The same process also establishes direct and immediate connection between the various combines and the political and industrial association of the capitalists. To give exhaustive evidence of this would be tedious : a few examples will suffice.

Lord Aberconway is a director of the following colliery companies [1]:—

Cortonwood Collieries Co.
Dalton Main Collieries Co.
Dinnington Main Coal Co.
Firbeck Main Collieries Co.
John Brown & Co.
Maltby Main Colliery Co.
Oakdale Navigation Collieries, Ltd.
Newstead Colliery Co.
Rossington Main Colliery Co.
Sheepbridge Coal and Iron Co.
Tredegar Iron and Coal Co.

He is also on the boards of Harland and Wolff, Ltd. (shipping), the Industrial Housing Association; the Metropolitan Railway Co.; Palmer's Shipbuilding and Iron Co.; Palmer's (Swansea) Dry Dock Co.; Thomas Firth & Sons, Ltd.; and the Wagon Finance Corporation. Thus, through the varied connections of this magnate, the coal industry is linked up with shipping, railways, iron and steel, investment trusts, etc. On the political side, Aberconway directly represents all these interests in the Federation of British Industries, on which he sits as a member of the central council.

Another coal magnate with wide connections in other directions is Lord Gainford, who, in addition to his interests in coal, is a director of the following companies:—

British Broadcasting Co.
County of London Electric Supply, Ltd.
Kent Electric Power Co.
Peachey Leather Products.
Royal Insurance Co.
South London Electric Supply Corporation.

Lord Gainford is also one of the Durham representatives on the Central Committee of the Mining Association of Great Britain.

The close relationship modern capitalism has established between coal, iron and steel, and finance is well exemplified in the case of Mr. Evan Williams, who, in addition to being

[1] In 1923.

president of the Mining Association of Great Britain, is a director of each of the following companies :—

Rhymney Iron Co.
Oakdale Navigation Collieries, Ltd.
Lloyds Bank.
Tredegar Iron and Coal Co.

Examples of the same inter-connection could be multiplied. Enough, however, has been said to show some of the far-reaching ramifications of modern capitalism.

This interlocking of directorates represents something more than the purely personal element; for with the development of capitalist combination in various branches of industry and commerce it serves as a connecting link, not only between companies, but also between large combines. Thus, for example, to take but one instance, Lord Aberconway links together three formidable coal, iron and steel combines—John Brown & Co., the Sheepbridge Coal and Iron Co., and the Tredegar Iron and Coal Co.

Very often groups of directors work in close association in pursuit of a certain line of policy. One of the most notable examples of this is the Berry-Llewellyn-Rhondda group. One or the other of the members of this group is represented on almost all the important coal, iron and steel concerns in South Wales; and through the variety and the complexity of their connection it is almost impossible to say definitely the precise extent of their controlling power. Other examples of the same type are the Dorman-Bell group—associated with the extensive interests of Dorman Long & Co.—and the Pease family group.

The inter-connections of companies and combines established in this way not only facilitate the formation of definitely constituted combines; they make possible also the formation of less obvious, but none the less effective combinations. The directors are always the controlling body directing the affairs of the company or combine; and when a powerful group has extensive interests it can bring the various concerns together and direct their activities in accordance with a common policy. No organised combination is necessary to unify the various concerns in this way, and for that very reason it is difficult

to ascertain to what extent common policies and agreements between the various undertakings have been developed in this way.

There can, however, be no doubt that the interlocking of directorates has been, and is, a means both of facilitating the establishment of organised combinations and of promoting tacit agreements between the various companies with a view to pursuing a common policy.

CHAPTER VIII

CAPITALISATION

With every change in the organisation of capital there goes a corresponding change in the financial machinery of the companies and combines involved. Whether in the floating of a joint stock company or in the establishment of a combination the finances of the concerns have to be rearranged in accordance with the new form of the corporate enterprise. Every new company formed has to issue a certain number of shares, and whenever a combine acquires control over some other undertakings new shares are, as a rule, issued in payment. The whole process of company flotation and the formation of combines turns upon the issue of shares. Moreover, every corporate undertaking, especially in times of prosperity, continually adds to its capital, and this again is effected chiefly by the issue of shares. These shares may be issued in order to raise funds to undertake a new enterprise in some direction or other; or, on the other hand, such is the peculiar nature of corporate finance under modern capitalism, they may be issued with no such purpose in view, merely at the caprice of the directors. Theoretically, a share of a given unit represents an equivalent amount of the company's real assets: thus a £1 share nominally represents that amount of value in the company's property. In actual practice, however, such is not the case; for, in addition to the issue of shares which have a basis in real property and capital assets, the practice has been extensively developed of issuing shares with no counterpart at all in real values. This latter process is known as over-capitalisation, or the inflation of nominal capital beyond its real value.

Over-capitalisation may be defined as that condition in the affairs of a company in which the par, or face, value of the shares exceeds the actual value of the assets on which those shares are supposed to be based. This may

be brought about in many ways. First of all is the method of issuing bonus shares to persons who already hold shares in the company. In prosperous times this method finds special favour. A colliery company, for example, after a year of exceptionally good profits, may decide to present each of its shareholders with a free £1 share for every £1 share held. The proportion in which bonus shares are distributed in relation to existing capital varies, of course, in accordance with many circumstances; but in every case each share thus issued constitutes a permanent addition to the capital of the company. It is easy to see, however, that the addition is only nominal; for the distribution of paper securities of a given denomination in no way adds to the real value of the property of the company. But if it does not add to the real capital, it affects the company's financial position. This apparently paradoxical situation is accounted for by the dual nature of capital under the modern joint stock method of organisation. The capital of a company exists really in a two-fold form—as material goods in the shape of land, plant, machinery, etc., and as paper securities nominally representing these goods. This paper capital may be increased or decreased without in the least disturbing the machinery and other real property of the company, it is therefore quite an easy matter to double or treble the value of the paper form of the capital, while the real material capital of production remains unaltered. Once, however, this policy of inflating the company's share capital is embarked upon, it follows that the nominal value of the real capital is correspondingly increased; for the share capital of a company represents in practice not the real value of the properties behind it, but their nominal value. An example will make this clear. If a colliery company has a capital of £1,000,000 in ordinary shares and the directors decide, after a prosperous year, to distribute amongst the ordinary shareholders a £1 bonus share for every £1 share already held, the capital of the company is thereby increased to £2,000 000. Thus the nominal value of the properties of the company is increased by 100 per cent., and the increased figure represents the new capitalisation of the company.

Another method of capital inflation closely resembling, in principle, the issue of bonus shares is to offer to share-

holders special concessions in the purchase of the company's securities. After a boom year, for example, a company may offer to those who already hold its shares, a number of fully paid £1 shares at 15*s.* each, or even at half-price. This method, naturally, causes a certain inflation of the capital of the company, though not to the same degree as the distribution of bonus shares.

The development of the combination movement does not do away with capital inflation. Quite the contrary; for the process of combination not only magnifies the already existing tendencies of corporate finance, but creates a number of new possibilities for expansion in this direction. The existence of a combine does not preclude the distribution of bonus shares, but renders it infinitely easier. Bonus shares generally accompany boom periods, and only concerns in a fairly good financial position can afford to issue them. In this respect the combine has the advantage over the independent company, and not only can it afford to make distributions oftener, but it can also make them on a much larger scale. The combine, especially of the holding company type, has also a greater number of capitals under its control, and it can organise the finances of its subsidiaries at its own discretion. Thus the development of combination magnifies considerably the modern phenomenon of bonus-share distribution with its consequent over-capitalisation.

It is not, however, only in these ways that the development of combination has contributed to the inflation of capital. Whenever a combination is formed it involves some degree of financial reorganisation of the concerns affected, and from this to the inflation of capital is but a short step. Over-capitalisation almost inevitably accompanies any process of amalgamation, and especially is this the case when amalgamations are brought about during a boom period. Under such circumstances, when prices and profits are high, every combination deal is effected at an inflated value. The parties to the amalgamation value their assets in the light of the high profits then existing, and insist on being paid for their properties in terms of their inflated values. Thus, if a concern with a capital of £500,000 has had a very prosperous time, its price for becoming a party to an amalgamation may be fixed at £750,000 or more, and if the deal is effected on

these terms the new combine, in respect of this concern alone, starts with an over-capitalisation of 50 per cent. Again, if a combine decides to acquire the shares of some undertaking during a boom period, when, as a rule, shares stand much above par value (a nominal £1 share perhaps being priced at £2, or even more) it will have to pay at the inflated value, either in cash or in its own shares. The result in any case will be over-capitalisation corresponding to the inflated selling price of the shares.

This situation is still further accentuated if the undertaking to be controlled has already carried out a certain amount of inflation by the issue of bonus shares. The capital of a concern may have been inflated already by 50 or 100 per cent.; and if the boom period continues these shares may be priced on the market much above par. A combine acquiring control of this concern by the purchase of its shares would thus have to pay an inflated price on an already inflated capital.

With the growth of the combination movement, therefore, inflation is added to inflation, and all the tendencies of corporate capital leading in this direction are magnified. A certain amount of over-capitalisation takes place at the formation of almost every company; but with the establishment of amalgamation the process can be accomplished on a much larger scale, with deeper and more far-reaching consequences.

From the capitalist point of view the policy of inflating capital has many attractions. When such a policy has been followed for some time there ensues a wide divergence between the real value of the property and the nominal value of the capital; and the fictitious capital bears hardly any relation to the real functioning capital. In this way the entire financial position of the corporation is very effectively obscured. This is one of the chief merits of the process to the capitalists concerned. Every increase in capitalisation, other circumstances remaining the same, means a decrease in the percentage rate of profit. If, for example, a combine with a capital of £5,000,000 made in one year a profit of £1,000,000, its rate of profit [1] for that year would be 20 per cent. This would, therefore, be its

[1] Assuming that none of it is placed in reserve—a common modern practice.

declared dividend for the year. Such a rate of profit, however, would indicate that the combine was in a very prosperous condition. It would indicate, moreover, that some one was being exploited very intensively. This could lead to very serious complications for the combine, and, in order to avert such a possibility, financial manipulation is resorted to. To reduce the percentage of profit, while retaining, of course, the aggregate profits, all that is necessary is to increase the nominal capitalisation by a bonus share distribution. Should the capital be thus written up by 100 per cent., the rate of profit, which is taken as the financial barometer of the prosperity of companies and combines, would be automatically reduced by 50 per cent.; and the declared rate of dividend would now be 10 per cent. In this way a totally false impression of the true financial position would be conveyed.

The process of inflating capital by these methods is not confined to one industry, but pervades every sphere of industry and commerce organised on corporate lines. The coal mining industry is no exception to this general rule. All the methods mentioned have, at different periods, been extensively used by the colliery owners, with the result that an enormous degree of over-capitalisation has been imposed upon the industry. Before the war very little "watering" of capital had been done in the industry, although some of the more prosperous concerns had developed, to a slight extent, the practice of issuing bonus shares; and as there was no extensive trustification in the pre-war years, over-capitalisation through the establishment of combines was negligible. On the whole, therefore, the amount of inflated capital in the coal industry before the war was exceedingly limited.

During, however, the prosperous years of the war and the boom period which followed, the inflation of capital proceeded very rapidly. It has already been pointed out that all the chief amalgamations in the coal industry were established during these boom years, when profits and prices were very high. Every transaction under such circumstances was inevitably on the basis of the high prices then reigning, and every deal involving the acquisition of a subsidiary concern, either by direct absorption or by securing control of its affairs, had to be paid for at

inflated prices. For during boom periods companies selling their independence stand out for the highest prices possible, and the combines which desire to acquire control are prepared, in the flush of their prosperity, to pay the high prices in order to extend their interests. This is exactly what happened in the coal industry. The big concerns, in their eagerness to invest their surplus profits, bought up a large number of subsidiary undertakings at prices much above their real value. The assets of enterprises to be acquired were greatly over-estimated ; for the purchase price of almost every acquisition was fixed in relation, not to the real value of the undertaking, but to the high profits it was then paying. Almost every amalgamation in the coal industry thus had the inevitable effect of greatly inflating the nominal capital involved in the transactions. In a large number of cases inflated prices were paid for the shares of the subsidiary undertakings ; whilst most of the big combines inflated their capital by the issue of new shares to carry through some of the transactions.

Innumerable examples of these financial manipulations could be taken almost indiscriminately from the history of the various combines interested in the coal industry. Dorman Long & Co. provides a good illustration. This combine, in 1920, acquired control of the Carlton Iron Co., which at that time had a capital of £400,000. The purchase price paid was £950,000, involving, therefore, an over-capitalisation of 137·5 per cent. Many of the other amalgamations carried through by Dorman Long & Co. during the boom years involved similar inflation of stock.

In 1920, Sir W. G. Armstrong Whitworth purchased a controlling interest in the Pearson and Knowles Coal and Iron Co., by paying £1 10*s*. for every £1 ordinary share. The capital involved in this transaction, therefore, now stands permanently inflated to the extent of 50 per cent. A large number of other concerns were bought up when their shares stood much above par, causing an inflation of capital to an equivalent amount in each transaction involved. When, in 1923, the Amalgamated Anthracite, Ltd., was floated, it paid in the case of some of the undertakings acquired as much as four £1 shares in the new company for every £1 share held in the old. This amalga-

mation, therefore, started its existence over-capitalised to the extent of 300 per cent. In the same way the Shelton Iron, Steel and Coal Co., acquired control of the Coking Co., Ltd., by issuing three fully paid £1 shares for every £1 share held in the Coking Co. In 1920, control of the Shelton Co. was secured by John Summers & Sons, Ltd., which added to this over-capitalisation by paying £1 5*s*. for every £1 share in the acquired undertaking. Thus did every amalgamation add to the already existing over-capitalisation; for, in every case, during the boom period the acquisition of a company meant the payment of many times its original capital value.

Over-capitalisation by the distribution of bonus shares was also extensively developed in the coal industry during the boom period. This process, as has been already pointed out, can, and does, take place independently of the promotion of amalgamations, but it is greatly stimulated during periods when combination is developing very rapidly. In the prosperous years of the coal industry, the practice of issuing bonus shares was adopted by almost every one of the leading companies, for when profits were very high and the miners were showing manifest signs of discontent, it was a most convenient procedure for the owners to over-capitalise their assets in order to keep down the percentage rate of profit. It is not surprising, therefore, to find that, during the boom period, a further enormous amount of over-capitalisation was imposed upon the coal industry in this way.

The precise extent to which bonus shares have been distributed is most difficult to ascertain. The matter would be rendered much easier if every company issued with its balance sheet complete details of its financial position. This, however, is not done; and the obscurity has been further accentuated with the development of combines. Some companies issue their accounts only to shareholders; and in a large number of cases the shareholders are no other than some great combine which has acquired the shares of subsidiary undertakings. It is almost impossible, therefore, to give exact details for the whole of the industry; but certain particulars are available concerning a considerable number of companies, and these, even if not extensive, at least convey a general idea of the extent to which the practice has developed. The following

list gives the percentage of bonus shares distributed by some of the chief colliery enterprises :—

Company.	Bonus share.	Year.
	Per. cent.	
Baldwins, Ltd.	27½	1919
Bearpark Coal and Coke Co.	50	1917–1918
Bullcroft Main Collieries, Ltd.	40	1920
Burnyeat, Brown & Co.	200	1908 and 1914
Cardiff Collieries, Ltd.	50	1913
Carlton Main Colliery Co.	150	1919
Consett Iron Co.	200	1919
Consolidated Cambrian	10	1915–1916
Cortonwood Collieries	75	1913 and 1916
D. Davis & Sons	105	1912 and 1918
Dorman Long & Co.	26	1917–1920
Fernhill Collieries, Ltd.	66⅔	1920
Fife Coal Co.	59½	1919–1922
Great Western Colliery	40	1919
Guest, Keen and Nettlefolds	265	1907–1918
Henry Briggs, Son & Co.	60	1921
Horden Collieries	50	1920
Insoles, Ltd.	116⅔	1913 and 1920
International Coal Co.	50	1919
Lochgelly Iron and Coal Co.	100	1920
Lofthouse Collieries, Ltd.	100	1920
Lothian Coal Co.	100	1922
Manvers Main Collieries, Ltd.	50	1915
New Monckton Collieries, Ltd.	100	1917 and 1920
Norths Navigation Collieries	25	1918
Ocean Coal and Wilsons, Ltd.	116⅔	1914 and 1920
Pearson and Knowles	20	1916–1920
Pease and Partners	20	1918
Penrikyber Navigation Co.	100	1920
Powell Duffryn Steam Coal Co.	108⅓	1907–1918
Sheepbridge Coal and Iron Co.	33⅓	1919
Shotts Iron Co.	100	1919
Sneyd Collieries, Ltd.	100	1923
Stafford Coal and Iron Co.	10	1919
Stanton Ironworks Co.	100	1913 and 1916
Staveley Coal and Iron Co.	66⅔	1915 and 1918
Tinsley Park Colliery Co.	20	1919
Tredegar Iron and Coal Co.	90	1918 and 1923
United National Collieries, Ltd.	100	1920
Wath Main Colliery Co.	100	1917
Wharncliffe Silkstone Colliery Co.	50	1919
Wilsons and Clyde Coal Co.	100	1914 and 1919

This compilation is by no means exhaustive, but it shows sufficiently clearly the immense amount of watered capital that was poured into the mining industry during the boom years. This inflation of capital indicates more than a state of financial prosperity of the concerns involved, it indicates that the industry is now encumbered with an enormous amount of fictitious capital which claims dividends. For a bonus share, from the financial point of view, in no way differs from any other share of the same denomination. Every new bonus share created means a corresponding addition to the nominal capital of the enterprise. When, therefore, this policy of issuing bonus shares has been followed for some time by a number of companies, it is inevitable that the nominal capital of the industry as a whole should be correspondingly increased. This is precisely what has taken place in the coal industry. The following table shows the growth of its capital from the beginning of the war :—

Year.	Capital. £
1914	135,000,000
1915	138,000,000
1916	145,000,000
1917	154,000,000
1921 [1]	180,000,000
1923 [2]	195,000,000

Thus in the short space of nine years the capital of the industry has increased by £60,000,000, or just under one-half of the pre-war total. This enormous increase, however, by no means represents a corresponding growth in the real value of the capital assets of the industry. By far the greater portion represents nothing more than watered stock ; for during the entire period of the war little was done in the way of developing the collieries by the addition of new machinery, by improved organisation and general technique. Financially, the war brought an amazing prosperity, with its inevitable accompaniments of inflated values and watered capital ; technically, however, it was a period of general paralysis, technical stagnation and arrested development.

[1] Estimate of Minister of Mines.

[2] Estimate given at the Inquiry, 1924.

The condition of the coal mines, more particularly in respect of underground developments, had suffered severely during the war. Through the pressing need for coal and the reduction of the number of workmen available for its production, it had been necessary to work the most productive seams and areas, leaving the exploitation of the more difficult parts of the mines to a later date; this, coupled with the difficulty of obtaining plant, caused the mines to get into a backward state. . . . Added to this, the uncertainty as to the future of the control of the industry acted as a check to the opening out and development of new undertakings, as capitalists were shy of embarking on the expenditure of large sums in so speculative an industry for a long deferred and probably reduced return on their money.[1]

The existing plant was allowed to get into a general state of decay. This, again, was accentuated by war-time exigencies which imposed on the structure and organisation of the industry a severe and abnormal strain. There was an excessive demand for coal, and this could be met only by working the easier and more accessible seams first. In addition, the high prices then ruling were a great temptation to the coal owners to concentrate all their available power on the production of coal for sale, to the neglect of repair and development work. It was a period of golden prosperity for the owners of capital: probably the most prosperous period in the history of the industry. Profits soared to enormous height. These profits, however, were used for the most part, not to reconstruct and reorganise the technical structure of the industry, but to extend the power of the bigger combines by the acquisition of subsidiary undertakings at inflated prices. At the very time, therefore, when the real functioning capital of the industry was rapidly depreciating, the nominal, fictitious capital was increased enormously.

This fictitious capital, of course, claimed dividend; for whether the mass of watered stock had been created by amalgamations at high prices or by the distribution of bonus securities it represented an increased capital on which dividends had to be paid. A bonus share acquired gratis represents a claim on profits just as a share for which a sum of money has been paid: so far as their earning capacity for the owner is concerned there is no essential difference between them. Moreover, a bonus

[1] Redmayne, *op. cit.*, p. 231.

share placed on the market will realise the same price as any paid-up share of the same denomination; and from the sale of these bonus shares enormous profits can, in fact, be made, as is demonstrated by the following example[1] of one of the large South Wales combines:

> The Powell Duffryn Steam Coal Co., with an ordinary share capital in 1913 of £541,000 odd, and £115,000 odd in preference shares disclosed profits after deducting depreciation, income tax, excess profits duty and coal mines excess payments for the fifteen years ending last year, of about $5\frac{1}{4}$ millions sterling, of which over three millions have been paid out in cash dividends, in addition to which £1,100,000 of bonus shares, which are now worth three times that amount, have been distributed as a free bonus. . . . £1,000 invested in 1903 in those shares would have received dividends since that time equal to £3,800, and would, in addition to the bonus shares received, now be saleable for about £5,500. The company has just recently offered another bonus to its shareholders by allowing them to take up new shares for 35*s*. at the rate of one for five, and the existing shares are quoted at 61*s*.

Other instances were cited in evidence before the Coal Commission of the same procedure having been adopted by combines in other parts of the country, showing that a most profitable business has been made out of the distribution of bonus shares. This, indeed, was one of the chief reasons for their issue, and the prosperous boom years provided every incentive for continuing the practice. From the point of view of the general prosperity of the industry, however, the practice has produced its inevitable nemesis. All this inflated mass of capital represents so many additional claims for dividends on the proceeds of the industry, and on the basis, not of a correspondingly improved organisation, but of a greatly depreciated industrial technique. Productive capacity, as a result of the war, has been seriously reduced. Easily worked seams have been exhausted. Output has fallen off, and costs—mostly as a result of inflation during the boom period—stand much higher. Yet on this disorganised and decrepit structure has been superimposed this great financial burden of watered capital. The financial demands of capital have been greatly increased, whilst the capacity of the industry to meet them has been greatly impaired.

[1] Coal Commission Report, 1919.

This apparently paradoxical situation is, however, the inevitable result of the policy, financial and industrial, pursued by the colliery owners, more especially the larger groups, during the war.

> The capital of the industry to-day was much in excess of the capital on which dividends were paid prior to the war. . . . At the present moment they had an increased capital as compared with 1914. It had increased from £45,000,000 in 1921 to about £60,000,000 at the present time. They had now a lower output, and it required a considerable increase on the profits to make the same return on capital. Consequently, the basis of profits ought to be increased.[1]

On the basis of this enormous amount of inflated capital, it needs a much larger mass of profits to pay the same dividend. If, for example, a concern paying 10 per cent. dividend inflates its capital by 100 per cent., it will, after the over-capitalisation, require the mass of profits to be doubled before it can continue paying this same rate. During the most prosperous times it is no easy matter to double the profits of a company in one year; but when, in addition, the organisation of the industry is in a state of disruption, the difficulty is very much greater.

This state of affairs, which existed in the coal industry at the end of 1920 and the beginning of 1921, certainly did not augur well for its future prosperity; but it was really only the prelude to a much greater disorganisation. Towards the end of 1920 there began a perceptible falling-off in the demand for coal and this grew more pronounced as time went on. Already the industry was over-burdened with watered capital, and to aggravate this still further, a period of general depression set in. Early in 1921 the world markets collapsed. Immediately, home and foreign prices came tumbling down. This made the position of the coal industry much worse. In order to maintain the rate of profit which the companies had paid during the boom period, it was necessary to maintain also the then existing level of prices. But, with the general collapse of the European and world markets, together with the rapid decline in the home demand, such a course was impossible. Prices, both home and foreign, had to fall; and they fell, not gradually, but with a headlong rush.

[1] Evidence of the President of the Mining Association before the Buckmaster Inquiry (*The Times*, April 30th, 1924).

With the collapse of market prices, the lean period descended upon the industry. On the face of it, there was nothing extraordinary in this; for the industry has been subjected to similar visitations before, but in many respects the slump of 1921 was unique. First of all, it descended upon the industry with an unprecedented crash—the result, in the main, of the general reaction which set in after the war. Under ordinary circumstances, the industry would have been able to withstand the shock, but after the period of decontrol it was ill-prepared for such a crisis. Its technical structure had suffered severely, and the sudden decision of the Government to decontrol the mines gave the final blow to any possibility of organisation on a national scale to meet the new situation. Decontrol meant a declaration of industrial anarchy when organisation was needed more than ever. With the removal of Government control, there was no organisation in existence capable of marshalling the resources of the industry to bear the strain of the slump which had now definitely set in. The miners, it is true, through their organisation, attempted to reorganise the industry on a national basis, only to be met by the opposition of both the Government and the coal owners. The only organisation that these bodies were prepared to tolerate, in a period of industrial anarchy, was an organisation to fight the miners.

The effects of these three factors—general depression, technical exhaustion and Government decontrol—were further aggravated by the great mass of inflated capital which had now become a permanent charge on the industry. The failure of the productive capacity of the industry, when the depression set in, to meet the exorbitant demands of an inflated capital, prompted the owners to turn to other directions in search of revenue. Prices could not be increased; for already the high prices charged for coal in the European markets had attracted American competition; whilst the general industrial slump at home precluded any possibility of raising prices there. Little could be expected by economising through the reduction of costs and overhead charges; for these, on the basis of the inflated values of the boom period, had been permanently increased. The only alternative was to turn attention to wages, to enable capital—and watered capital

at that—to recoup itself out of the standard of life of the miners. The lock-out of 1921 was the coal owners' declaration of this policy of compensating inflated capital at the expense of labour. The debacle of "Black Friday" was the tocsin of its success.

The enormous inflation of capital that has taken place is now one of the root evils of the mining industry; and it is an evil that permeates every department of the industry. For the evil of over-capitalisation is much more all-pervading than is expressed by the distribution of a number of bonus shares, or even by the acquisition of subsidiaries at inflated values. The most far-reaching form of over-capitalisation is that which, during the boom period, involved the revaluation of the entire plant, property and machinery of the industry. This must have proceeded to an enormous degree, though it is impossible to give precise figures, but on the whole, it is a conservative estimate which would put the degree of inflation of all kinds in the coal industry at 100 per cent.

On the basis of this aggregation of inflated values, allowance has to be made for depreciation of plant. This, in itself, constitutes an enormous expense, and in accordance with the terms of the 1921 agreement, depreciation allowance is a first and fixed charge on the proceeds of the industry, and has to be deducted before any wages or profits can be paid. Before the war depreciation allowance amounted to about £13,000,000 a year, or about 10 per cent. of the capital of the industry. Under the 1921 agreement this item is not given separately, but appears under the heading of "other costs," which include, in addition, salaries, management, insurances, repairs, and a further portmanteau item called general and office expenses.

These inflated charges are not met by an improved and efficient technique, and they remain a dead weight on the industry, absorbing large sums of revenue which otherwise would be available for the payment of increased wages and a general raising of the standard of life of the persons out of whose labour these charges have to be met. As it is, wages have to be sacrificed in order to meet the demands of an enormously inflated capital owned by hungry shareholders clamouring for dividends. The aim of modern production, it cannot be too often reiterated, is profit;

and the resources of industry are used, not for the purpose of guaranteeing a certain standard of living for those engaged in it, but to satisfy these exorbitant claims. Throughout the boom period the coal owners pursued a definite policy of inflation, and when the lean period set in the miners were forced to bear the burden thus imposed on the industry. Already there are rumblings of revolt against this, and before any semblance of " peace " can be established in the industry the entire position will have to be reviewed in the light of the new developments in the financial operations of capitalism.

CHAPTER IX

SOME EFFECTS OF THE COMBINATION MOVEMENT

THE development of the combination movement marks an entire revolution in the organisation of capital in the coal industry. The distinctive form of the capital unit to-day is not the small independent property of a few decades ago, but the great combine owning a large number of collieries in various parts of the country, and with extensive connections in other branches of industry and commerce. In the coal industry, as in most other industries, the combine has become, and is becoming to a greater and greater extent, the typical financial unit.

This revolution in the character of coal capitalism has, in turn, brought to the fore new and pressing problems which confront, not only the people engaged in the industry, but the whole of society. Coal mining is a key industry, and its product is of necessity the life-blood of every industrialised community. Any new developments in the organisation of the power which controls this key industry must, therefore, be of vital consequence to the whole industrial structure of society. Under any form of capitalism in the coal industry control over one of the most vital of the national resources is vested in private ownership; but with the growth of combination amongst the coal owners the power to wield this control is greatly strengthened, while at the same time it is concentrated in fewer hands.

Already with the development of joint stock companies there is a perceptible change in the nature of capital and in the control of its owners over the industry. Corporate capital increases the power of private control over the vital resources of society, and makes possible the exploitation of a great social need for private gain. Function is separated from ownership, and control is based, not on administrative capacity, but on the possession of paper securities. On the basis of such a system there arises " a

new aristocracy of finance, a new sort of parasites in the shape of promoters, speculators and merely nominal directors ; a whole system of swindling and cheating by means of corporation juggling, stock jobbing and stock speculation. It is private production without the control of private property." [1] All these features of the corporation are extended and magnified when capitalism arrives at the stage when companies coalesce in great combines.

These powerful combines, controlling a large part of an important national resource, contain within themselves possibilities of grave social dangers. A big combine in any sphere of industry offers to a few persons an immense power out of all proportion to their number. When, in addition, their power is wielded over a key industry like coal mining the danger is greatly increased. The combine being in private hands, the only motives actuating its controllers are private interest and private gain ; and an important industry like coal mining is exploited to further these interests. A nation's resources are held to ransom to provide these combines with dividends, and in most cases the levers of control are manipulated by a small group of powerful individuals. In the shelter of this control a large army of speculators and stock jobbers accumulate fortunes by trading and gambling in shares. Not only is function separated from ownership, but the titles to this ownership are the means of maintaining an unproductive host of speculators who derive their revenue from the vicissitudes of share prices. In fact, with the control of the industry vested in the hands of a small group of financial magnates, it is by no means an impossibility to administer its affairs in such a way as to derive the maximum advantage from share fluctuations.

In a more obscure, but none the less effective, way combines in the coal industry can be the source of great social danger. The financial powers of these combines are colossal, and in modern capitalist society there is very little that money cannot buy. By the exertion of financial pressure a combine can make its influence felt in every department of social life. In the sphere of politics in particular is this so. The large combines are able to influence political considerations in many ways, and their power can be, and is, directed to the utilisation of political

[1] Marx : "Capital," vol. III., p. 519.

institutions in order to further their economic ends. Experience seems to show that the development of capitalist combination goes hand in hand with an all-pervading corruption in political life.

There are many other social dangers connected with the development of capitalist combination in the coal industry. Reference has already been made to the evil of over-capitalisation which is invariably attendant upon the establishment of combinations. This provides a direct incentive not only to reduce wages but to increase prices wherever possible, in order to provide dividends for an inflated capital. No combine, it is true, has as yet a monopoly in the coal trade, although the British coal industry as a whole has no foreign competition to face in the home market; and to that extent at least has a monopoly at home. The incentive to raise prices is always present with this great mass of over-capitalisation, and while there may be no definite agreement amongst the various combines, it is possible that "by control of shares, by common directors, or by the formation of sub-companies there may be all the effects of combination without any agreements, open or secret."[1] A great mass of watered capital in any industry bodes no good for society, and in a key industry it has very positive dangers.

From a wider point of view, however, capitalist combinations may be regarded as something other than the incarnation of all that is evil in the economic system. The combination movement contains great potentialities for economic progress and industrial and technical development. First of all, the establishment of combines indicates a highly-developed industrial technique, for upon this basis alone is the modern type of combination possible. The older combinations in the coal trade rested on the general backwardness of the means and methods of production; but the modern movement springs substantially from the revolutionary consequences of the application of mechanical inventions to industry and commerce. With this highly-developed technique at their command combines are able to practise numerous economies beyond the reach of the single, independent firm. In production, distribution and general organisation they are much better equipped, and as a rule they represent a greater productive

[1] Report on Trusts, p. 32.

capacity in proportion to the amount of capital and labour involved. To this extent, they mark a step forward in technical and economic progress.

It does not follow, however, that the combines aim at the realisation of these economies for the benefit of society: on the contrary their greater resources and possibilities are invariably used for private, not for social ends. Yet, in spite of this, combines, while they do not directly promote, at least make possible, the social organisation of the industry. This, it need not be emphasised, is not the aim of capitalist combination, but the unification and standardisation created by the combines can well provide the basis for a more all-embracing unification of the industry, organised, of course, for a different purpose. The technical and economic organisation of the combines presents great possibilities as a starting point for the eventual unification of the coal industry on a national basis.

On the relations between capital and labour, the combination movement must inevitably produce drastic and far-reaching consequences. With the growth of combination all the old personal relations of master and men are uprooted. The development of the joint stock company tends to make the relation of labour and capital a matter of things rather than persons. The combination movement carries this tendency to its logical conclusion. With the network of controls wielded by the combine, and the ramifications of its connections, it is almost impossible for the workman to know who, in the last analysis, is his employer. At one time labour was confronted by capital personified in the employer. In the case of the combine there is no such personification, and the relation between capital and labour becomes more and more impersonal. It is not the individual capitalist who now confronts the workman, but a great aggregation of capital controlled by a group of people wholly unknown to him. "The tendency of these large aggregates is necessary to become impersonal and to make the worker feel that he is dealing with a vast machine. . . . From a social point of view, the bigger the employers the more detached they are from the men they employ." [1] With the extension of combination amongst the coal owners the opposition of labour and capital is

[1] Report on Trusts, p. 7.

seen in its most highly developed form—as the struggle of two great units struggling not only for a greater share in the proceeds of the industry, but also for its eventual control. The development of combination goes far to clear the ground for this final struggle.

Changes in the organisation of capital are reflected in the changing relations of employers and employed, and these, in turn, produce changes in the organisation of labour. There must inevitably be a very close connection between the form of the organisation of capital and that of the organisation of labour. Capitalism undergoes, by the laws of its existence, repeated transformations, but it is only slowly and gradually that the organisation of labour is altered to meet these changing circumstances. There is at all times a tendency for organised labour, especially in the trade union sphere, to cling to old and outworn forms of organisation when the conditions which gave rise to these forms have long since passed away.

The combination movement in the coal industry, while it has certainly intensified the class antagonism of labour and capital, has produced no immediate and drastic revolution in the organisation of labour. In the main the miners' union still bears on its general structure the imprint of the pre-combination stage of capitalism. Gradually, however, a consciousness is growing in the ranks of the miners that the present form of their organisation is ill-adapted to face the new situation created by the growth of combines. In South Wales, where the combination movement has made such rapid strides, this is especially so, and already attempts have been made to bring the organisation of labour into line with that of capital.

"With the growth of combines in the South Wales coalfield, the miners in those districts where they exist have formed what are known as 'combine committees,' representative of all the miners' lodges of the particular group of collieries controlled by a big company, these committees being found serviceable in securing co-ordination among the lodges when they happen to belong to different districts—one may be in Monmouthshire and another in the Rhondda, and so on. An interesting point has been raised as to the functions of such a combine committee. Should it possess the right, as acting collectively for the workmen, to interview the heads of the company and discuss grievances? In other words, should it

be 'recognised' by the colliery owners? Some time ago the combine committee of the Ebbw Vale Co.'s Collieries applied for an interview with the general manager. This was declined, the general manager, however, pointing out that he was fully prepared to receive representatives of individual lodges. The matter was subsequently taken up by the Monmouthshire Western Valley Miners' Council, who at their March meeting passed a resolution requesting the Executive Council of the South Wales Miners' Federation to take steps with a view to the insertion of a clause in the new wage agreement, making it imperative upon the owners to recognise combine committees in the South Wales coalfield." [1]

These combine committees are as yet in their infancy, although they are gradually spreading to every part of the South Wales coalfield. In the anthracite district they have already made considerable headway. In July, 1923, the Amalgamated Anthracite Combine was formed, and within six months a combine committee had been created to embrace all the collieries of the syndicate. Almost every other capitalist combine in the coalfield has similarly been instrumental in bringing into existence a combine committee of the workmen.

It is early yet to estimate the precise significance of these committees in the affairs of the industry. In many cases they have been refused recognition by the coal owners—a question which, sooner or later, the Miners' Federation of Great Britain will have to take up. In almost all cases they suffer from the inevitable immaturity of a new type of organisation. Up to the present, they have not been submitted to the acid test of a conflict with the power of the capitalist combines; nor have they put forward any positive proposals for dealing with them. In the main, the motive of their formation has been one of defence rather than of aggression, and their efforts so far have been concentrated chiefly on the question of their recognition by the owners. In spite of all this, however, there can be no doubt that the idea of the combine committees will spread amongst the miners, and that, properly organised and directed, they contain vast potentialities as a step forward in the organisation of labour in the coal industry.

The attitude of the Miners' Federation to the combination movement has never been clearly defined. Its

[1] *South Wales News*, April 11th, 1924.

attitude to the national unification of the industry, however, is well known, and from this standpoint it cannot attempt either to abolish the combines or to check their development. In so far as combines are the logical outcome of the development of economic forces, it is Utopian to try to abolish them and reactionary to prevent their formation. The problem for organised labour is not to dissolve the combines, but to wrest them from private control.

INDEX

PRINTED IN GREAT BRITAIN BY THE WHITEFRIARS PRESS, LTD., LONDON AND TONBRIDGE.